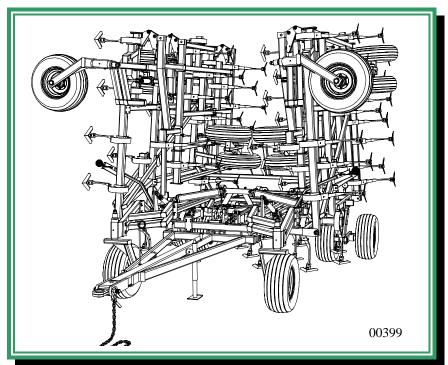
# **Operator's Manual**

Series VII 6330, 6332, 6538, 6539, 6541, 6544, 6546 & 6548 **Field Cultivator, Floating Hitch** 

# Great Plains Manufacturing, Inc.



Read the operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it.



Cover illustration may show optional equipment not supplied with standard unit.

# Table of Contents

Important Safety Information	1
Safety Rules	6
Safety Decals	7
Introduction	12
Description of Unit	12
Using this Manual	12
Definitions	12
Owner Assistance	12
Assembly and Setup Assistance	13
Product Support	13
Pre-Assembly Checklist	13
Section 1 Assembly	14
Center Torque Tube & Walking Beam	
Assembly	14
Inside Wing and Wheel Arm Assembly	15
Brace Bar, Wing Brace & Rocker/Fold	
Bracket Assembly	16
Center Level Bar Assembly	17
Center Caster Wheel Linkage &	
Hitch Pole Assembly	18
Outside Wing Assembly	19
Connecting Outside Wing and Wing Brace	
Assembly	20
Wing Caster Wheel Linkage Assembly	21
Center Lift Cylinder, Rest Pads and	
Hydraulic Valves Assembly	22
Fold Cylinders, Rocker Arm and 3" Rollers	
Assembly	23
Center Wing Stop and Outside Wing Stop	
Assembly	24
Gauge Wheel Assembly	25

Completing Setup	26
Section 2 Hydraulics	28
3-Section Lift Hose Layout	28
3-Section Fold Hose Layout	29
5-Section Lift Hose Layout	30
5-Section Fold Hose Layout	31
Section 3 Shank Placement	32
6330 Shank Layout	32
6332 Shank Layout	33
6537 Single Fold Shank Layout	34
6537 Double Fold Shank Layout	36
6539 Single Fold Shank Layout	38
6539 Double Fold Shank Layout	40
6541 Single Fold Shank Layout	42
6541 Double Fold Shank Layout	44
6544 Single Fold Shank Layout	46
6544 Double Fold Shank Layout	48
6546 Shank Layout	50
6548 Shank Layout	52
Section 4 Operating and Maintenance	54
Prior To Going To The Field	54
General Operating Instructions and	
In-Field Adjustments	55
Maintenance and Lubrication	57
Section 5 Specification and Capacities	58
Appendix	59
Torque Values for Common Bolt Sizes	59
Tire Inflation Chart	
Warranty	60

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# Important Safety Information

# **Look for Safety Symbol**

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.



# **Be Aware of Signal Words**

Signal words designate a degree or level of hazard seriousness.

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.







# **Be Familiar with Safety Decals**

- Read and understand "Safety Decals," page 7, thoroughly.
- · Read all instructions noted on the decals.

# **Keep Riders Off Machinery**

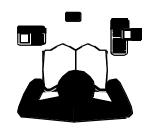
- Riders obstruct the operator's view. Riders could be struck by foreign objects or thrown from the machine.
- Never allow children to operate equipment.
- Keep all bystanders away from machine during operation.

# **Shutdown and Storage**

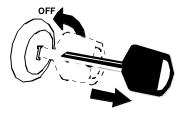
- Lower Series VII Field Cultivator, put tractor in park, turn off engine, and remove the key.
- Secure Series VII Field Cultivator using blocks and supports provided.
- Detach and store Series VII Field Cultivator in an area where children normally do not play.

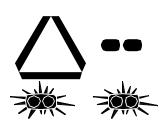
# **Use Safety Lights and Devices**

- Slow-moving tractors and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- Use flashing warning lights and turn signals whenever driving on public roads.
- Use lights and devices provided with implement.









# **Transport Machinery Safely**

Maximum transport speed for implement is 20 mph. Some rough terrains require a slower speed. Sudden braking can cause a towed load to swerve and upset.

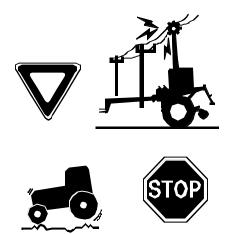
- Do not exceed 20 mph. Never travel at a speed which does not allow adequate control of steering and stopping. Reduce speed if towed load is not equipped with brakes.
- Comply with state and local laws.
- Do not tow an implement that, when fully loaded, weighs more than 1.5 times the weight of towing vehicle.
- Carry reflectors or flags to mark tractor and implement in case of breakdown on the road.
- Keep clear of overhead power lines and other obstructions when transporting. Refer to transport dimensions under "Specifications and Capacities," page 58.
- Do not fold or unfold the wings while the tractor is moving.

# **Avoid High Pressure Fluids**

Escaping fluid under pressure can penetrate the skin, causing serious injury.

- Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
- Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

1/25/2005





#### **Practice Safe Maintenance**

- Understand procedure before doing work.
   Use proper tools and equipment. Refer to this manual for additional information.
- Work in a clean, dry area.
- Lower the Series VII Field Cultivator, put tractor in park, turn off engine, and remove key before performing maintenance.
- Make sure all moving parts have stopped and all system pressure is relieved.
- Inspect all parts. Make sure parts are in good condition and installed properly.
- Remove buildup of grease, oil or debris.
- Remove all tools and unused parts from Series VII Field Cultivator before operation.



- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.

# **Wear Protective Equipment**

- Wear protective clothing and equipment.
- Wear clothing and equipment appropriate for the job. Avoid loose-fitting clothing.
- Because prolonged exposure to loud noise can cause hearing impairment or hearing loss, wear suitable hearing protection such as earmuffs or earplugs.
- Because operating equipment safely requires your full attention, avoid wearing radio headphones while operating machinery.







### **Handle Chemicals Properly**

- Agricultural chemicals can be dangerous.
   Improper use can seriously injure persons, animals, plants, soil and property.
- Read and follow chemical manufacturer's instructions.
- Wear protective clothing.
- · Handle all chemicals with care.
- Avoid inhaling smoke from any type of chemical fire.
- Store or dispose of unused chemicals as specified by chemical manufacturer.

# **Use A Safety Chain**

- Use a safety chain to help control drawn machinery should it separate from tractor drawbar.
- Use a chain with a strength rating equal to or greater than the gross weight of towed machinery.
- Attach chain to tractor drawbar support or other specified anchor location. Allow only enough slack in chain to permit turning.
- Replace chain if any links or end fittings are broken, stretched or damaged.
- Do not use safety chain for towing.

# **Tire Safety**

- Tire changing can be dangerous and should be performed by trained personnel using correct tools and equipment.
- When inflating tires, use a clip-on chuck and extension hose long enough to you to stand to one side—not in front of or over tire assembly. Use a safety cage if available.
- When removing and installing wheels, use wheel-handling equipment adequate for weight involved.

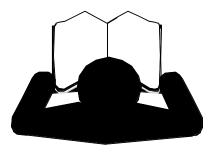






### **Safety Rules**

- Thoroughly read and understand the instructions in this manual before operation. Read all instructions noted on the safety decals.
- Be familiar with all Series VII Field Cultivator functions.
- Operate machinery from the driver's seat only.
- Do not leave Series VII Field Cultivator unattended with tractor engine running.
- Do not transport the field cultivator until the transport position and transport pins and all wing locks are installed.
- Limit transport speed to 20 m.p.h.
- Know the transport height of your unit and be extremely careful of overhead electrical and telephone lines when transporting the unit.
- Know the transport width of your machine and the width of bridges, etc... on the transport route.
- Make sure that no one is near the machine during field operation and folding or unfolding of wing sections.
- Prior to removing any lift cylinders from the machine, lower implement to the ground, shut off the tractor and release the pressure in the lines.
- Do not depend on cylinders to hold the weight of machine during storage; use the transport locks.
- Do not walk or stand on any part of the machine. Never allow anyone to ride on the field cultivator.
- Use extreme care when hitching or unhitching the machine from the tractor. In some situations with a heavy finishing attachment, the machine may tip backward causing the hitch to rise rapidly.
- Never stand with feet under any part of the machine.

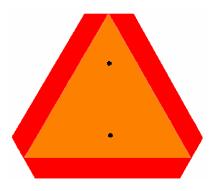


- Never allow anyone to walk between the tractor and field cultivator while machine is in operation.
- Keep hands and feet away from cultivator sweeps. They are quite sharp.
- Any moving piece of equipment is potentially dangerous. Do not operate until you are absolutely sure the area is clear of children, pets and irresponsible persons.
- Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious injury. To prevent injury when working with hydraulics, follow the instructions on page 3.
- Before transporting the unit on public roads, check to make sure the safety reflectors are clean and visible, and not missing or damaged. Turn on tractor warning lights when transporting.
- Make sure all safety signs are clean, readable and not damaged. Contact Great Plains Mfg. for free replacements if necessary.

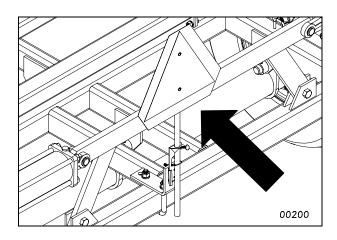
# **Safety Decals**

Your implement comes equipped with all safety decals in place. They were designed to help you safely operate your implement.

- Read and follow decal directions.
- Keep all safety decals clean and legible.
- Replace all damaged or missing decals. Order new decals from your Great Plains dealer.
   Refer to this section for proper placement.
- When ordering new parts or components, also request corresponding safety decals.
- To install new decals:
  - 1. Clean the area on which the decal is to be placed.
  - 2. Peel backing from decal. Press firmly on surface, being careful not to cause air bubbles under decal.



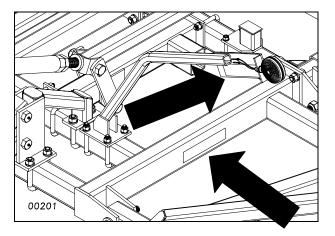
Slow Moving Vehicle Emblem Quantity 1





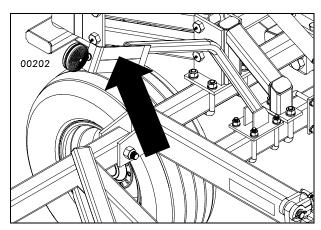
Reflector – Amber (yellow) 838-615C

Quantity 6: Two on light brackets and two on center brace bars. Two on rear of finishing attachment (not shown), visible from side while folded for transport.





Reflector - Red 838-614C Quantity 2



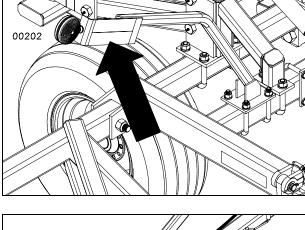


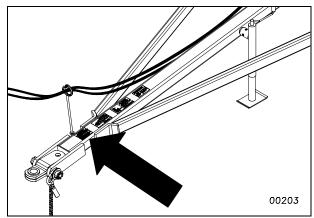
Reflector – Florescent Orange 838-603C Quantity 2



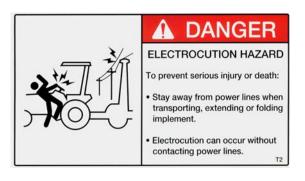
- Read and <u>Understand</u> the Operator's Manual before using machine. Stop tractor engine, lower machine to the ground, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, unplugging or fitting.
- 3. Keep hands, feet, hair and clothing away from earth-working points and blades.
- 4. Do not allow riders.

- Clean reflectors, SMV and lights before transporting.
   Install safety locks before transporting or working beneath components.
   Add extra lights and use pilot vehicle when transporting during times of limited visibility.
- Use hazard flashers in tractor when transporting.
- Install safety chain when attaching to tractor.
- 10. Review safety instructions with all operators annually.

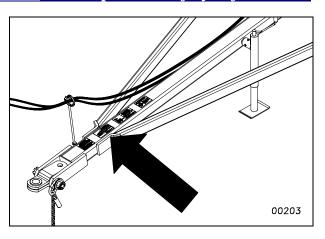


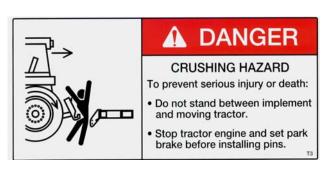


Caution 838-598C Quantity 1

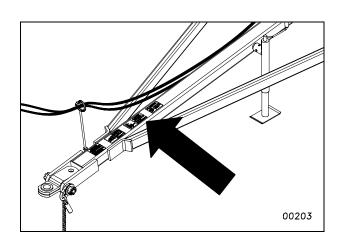


Danger Electrocution Hazard 838-599C Quantity 1



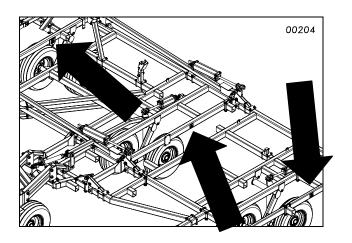


Danger Crushing Hazard 838-600C Quantity 1



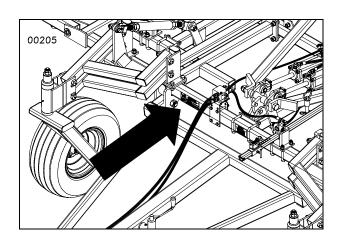


Warning Overhead Wing Hazard 838-602C Quantity 4 (3-section), 6 (5-section)

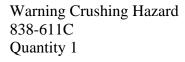


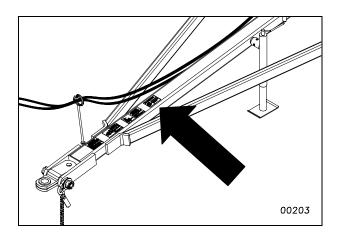


Warning High Pressure Fluid Hazard 838-094C Quantity 1









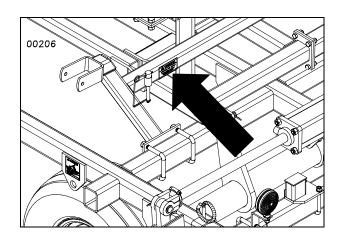


#### WINGS COULD FALL SUDDENLY

Keep Wing Safety Pins in Place Until Cylinder & Lines Are Full of Oil & Free of Air

K-8

Warning Wing Falling Hazard 838-612C Quantity 2

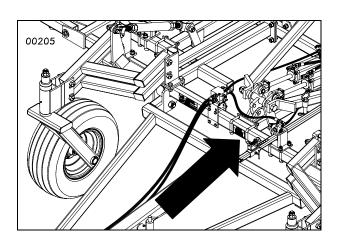


# **NOTICE**

SAFETY STOP BRACKETS OR TRANSPORT LOCK PINS MUST BE USED DURING TRANSPORT TO MAINTAIN MINIMUM MACHINE HEIGHT AND SUPPORT WEIGHT OF MACHINE IN THE EVENT OF HYDRAULIC FAILURE.

K-9

Notice 838-613C Quantity 1





# Introduction

Great Plains welcomes you to its growing family of new product owners. This implement has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance and safe operation will help you get years of satisfactory machine use from your machine. To ease the assembly task and produce a properly working machine, read this entire manual before assembling or setting up new equipment.

#### **Description of Unit**

The Series VII 6330, 6332, 6537, 6541, 6544, 6546 & 6548 Field Cultivator is a 3 or 5-section seedbed preparation tillage tool. Working width is 30 to 48 feet. The implement is designed for secondary field operations to smooth, level, eliminate weeds and incorporate chemicals. Various finishing attachments are available to further smooth, redistribute residue, firm soil and break clods.

# **Using This Manual**

This manual will familiarize you with safety, assembly, operation, adjustment, troubleshooting and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

The information in this manual is current at printing. Some parts may change to assure top performance.

#### **Definitions**

The following terms are used throughout this manual.

Right and left as used in this manual are determined by facing the direction the machine will travel while in use unless otherwise stated.

IMPORTANT: A crucial point of information about the preceding topic. For safe and correct operation, read and follow the directions provided before continuing.

NOTE: Useful information about the preceding topic.

#### **Owner Assistance**

If customer service or repairs are needed, contact your Great Plains dealer. They have trained

personnel, parts and service equipment specially designed for Great Plains products.

Your machine's parts should only be replaced with Great Plains parts. Always use the serial and model number when ordering parts from your Great Plains dealer. The serial-number and patent plate (if provided) are located on the center section of the implement on the front frame tube as shown in Figure A.

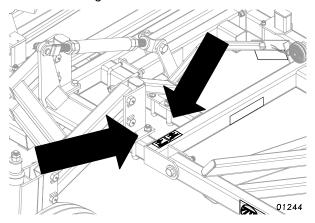


Figure A
Serial Number & Patent Plate

Record your implement model and serial numbers here for quick reference.

Model Number:	
Serial Number:	

Your Great Plains dealer wants you to be satisfied with your new machine. If you do not understand any part of this manual or are not satisfied with the service received, please take the following actions:

- 1. Discuss the matter with your dealer's service manager. Make sure they are aware of any problems so they can assist you.
- 2. If you are still not satisfied, seek out the dealership owner or general manager.
- 3. For further assistance, write to:

#### **Product Support**

Great Plains Mfg. Inc. Service Department

PO Box 5060

Salina, KS 67402-5060

gp\_web\_cs@greatplainsmfg.com

(800)-255-9215

# **Assembly and Setup Assistance**

To order additional copies of operator's and parts manuals, write to the following address. Include model numbers in all correspondence.

If you do not understand any part of this manual or have other assembly or setup questions, assistance is available. Contact

#### **Product Support**

**Great Plains Mfg. Inc., Service Department** 

607 Main Street Tipton, KS 67485

# **Pre-Assembly Checklist**

- Before assembling, read and understand "Important Safety Information," beginning on page 1.
- Have at least two people on hand while assembling.
- Make sure assembly area is level and free of obstructions (preferably an open concrete area)
- Have all major components.
- Have all fasteners and pins shipped with Series VII Field Cultivator.
- IMPORTANT: If a pre-assembled part or fastener is temporarily removed, remember where it goes. Keep the parts separated.
- Have a copy of the parts manual on hand. If unsure of proper placement or use of any part or fastener, refer to the parts manual.
- Check that all working parts are moving freely, bolts are tight, and cotter pins are spread.



This section covers the proper assembly of the implement. The reference numbers on the figures give you an indication of the order of assembly. For a complete breakdown of any part not shown in this assembly section, refer to the parts manual for proper location. Refer to the Appendix for proper bolt torque values.

# **Center Torque Tube & Walking Beam Assembly**

After uncrating the machine, place the center frame (1) Figure 1, in the center of your work area on stands. Pin the torque tube (2) to the center frame with the  $1\frac{1}{4}$  x 6 pins (3) and 1 1/4 x 7 pin (4), secure them with 3/8 x 2 1/4 Gr.8 hex bolts (5) & top lock nuts.

Slide the pivot spindle of the walking beam assembly (6) into the sleeve at the end of the torque tube wheel arm. Take note of the Left and Right Walking Beam Assembly (6). The Flip Over Stop goes Toward Rear and Grease Zerk up. It is a good idea to put some

form of anti-seize on the spindle before you insert it. Line up the hole in the spindle with the hole in the sleeve and secure with 5/16 x 4 1/2 hex bolt (7) with lock washer and hex nut.

When both walking beams have been installed, bolt on the 9.5Lx15, 12 ply tires (8) for 6330 & 6332 models or the 11L x 15, 12-ply tires (8) for 6537-6548 models, using 1/2" lug nuts (9). Bolt the 5x4 K-Flex stubs (10) on with 1/2 x 6 1/2 hex bolts (11), lock washers and hex nuts.

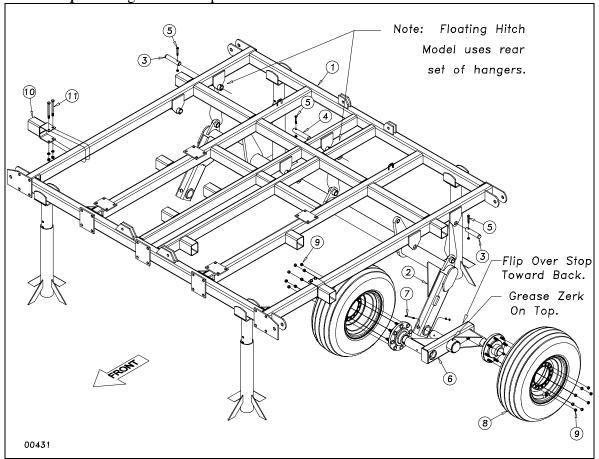


Figure 1

#### **Inside Wing and Wheel Arm Assembly**

Bolt the inside wing frames (1) Figure 2, to the center frame with two 1 x 6 hex bolts (2) with nylon lock nuts (3). Draw the nuts down tight but *do not torque*.

Once the wings are attached, insert the wheel arm bracket (4) into the wing frame hangers and secure it just as you did on the center with 1 1/4 x 6 pins (5). Secure the pins with 3/8 x 2 1/4 Gr.8 hex bolts (6) & top lock nuts.

Install the wing walking beam assembly (7) as shown in Figure 2 with the 14" spindle

(6330 & 6332) or 18" spindle (6537-6548) toward the front and 13" spindle on the back.. Secure the pivot spindle in the sleeve with the 5/16 x 3 clevis pin (8) and 1/8 x 1 cotter. Use anti-seize material on spindles

Bolt the 9.5L x 15, 8-ply tire (9) in place with the 1/2 x 1 1/4 lug bolts (10). On model 6332, bolt the 11" bolt on stub (12) to the wing frame using 5/8 x 1 1/2 hex bolts (13), using lock washers and hex nuts.

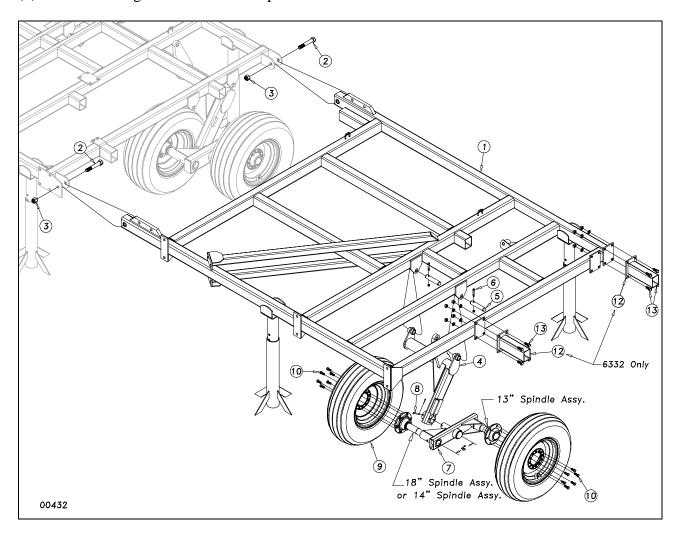


Figure 2

#### Brace Bar, Wing Brace & Rocker/Fold Bracket Assembly

Install the 1 x 7 1/2 eye bolt (1) Figure 3, in the mounting bracket at the back of the wing with a 1" jam nut on each side of the bracket. Install the 3 1/4 x 8 rephasing wing cylinder (2) between the eyebolt and the lever on the wheel bracket. Secure the cylinder with 1 x 3 clevis pins, 1" machine washer and 3/16 x 2 cotter pin.

Bolt the center brace bar (3) and wing brace bar (5) to the front of the center frame and wing frame with 3/4 x 2 hex bolts (4) with lock washers and hex nuts. **Do not** tighten bolts. Use a 1 x 6 hex bolt (6) and nylon lock nut in the hinge. Draw nut tight but **do not torque**. Insert the cylinder mounting tube (7) between the center frame and the brace bar. Attach with 5/8 x 4 x 4 1/2 u-bolts (11) and 3/4 x 2 hex bolts (12), lock washers and nuts. Insert the leveling link tubes (8 thru 10) and attach with u-bolts (11) as before. Tightening all u-

bolts and brace bar bolts evenly to prevent binding at hinge.

Bolt the rocker/fold brackets (13) & (14), if applicable, to the wing using two 3/4 x 2 1/2 hex bolts (15) with lock washers and hex nuts, along with two 5/8 x 3 x 5 1/2 u-bolts (16) with lock washer and hex nuts. The front bracket uses a 3/4 x 5 bolt (17) to attach the outer end. The rear bracket uses four 5/8 x 2 bolts (18) with lock washers and hex nuts to attach the outer end. Bolt the inside hinge (19) to the wing brace using 5/8 x 2 bolts (20) and one 5/8 x 3 x 5 1/2 u-bolt (21) with lock washers and hex nuts. Bolt the 5" stub (22) to the wing frame using 5/8 x 1 1/2 bolts (23) with lock washers and hex nuts.

Model 6330 & 6332 has rocker bracket (24), connecting link (25) and connecting link bracket (26). Assemble with 1 x 3 hex bolts (27) with 1" lock nuts, 1/2 x 3 x 5 u-bolts (28) with lock washers and hex nuts.

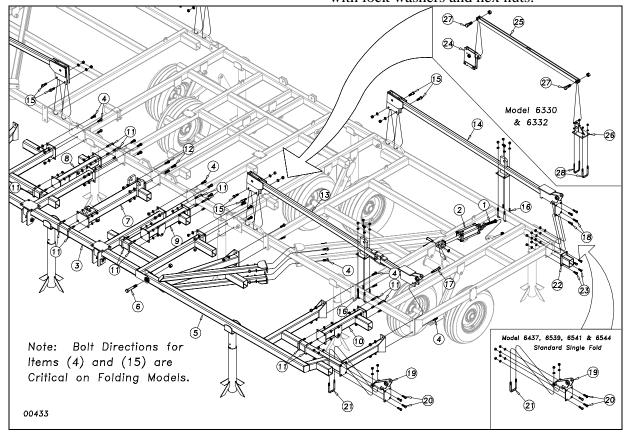


Figure 3

#### **Center Level Bar Assembly**

Slide the H-bracket (1) down over the cylinder mount tube as shown in Figure 4. Bolt in place with a 3/4 x 8 bolt (2) and lock nut. Draw this nut up but *do not torque*, as this part must pivot.

Connect the level bars (3) and (4) to the torque tube using two 1 x 3 3/8 usable clevis pins (5), 1" flat washers, 1" machine washers and 3/16 x 2 cotter pins. Install the 1 1/4 x 13 1/2 Gr.8 bolt (6) through the level bars and H-bracket. Draw up snug with a 1 1/4 top lock nut *do not torque*.

Connect the three level bar cross braces (7) between the level bars and bolt in place with 5/8 x 1 1/2 bolts (8) using nuts and lock washers. Slide the leveling links (9) over the leveling link mounting tubes as shown. Bolt in

place with 1 x 6 special thread Gr.8 hex bolts (10), securing with nylon lock nuts. **Do not torque**, as this part must pivot freely. Connect the gauge wheel level bars (11) to the level bars (3 & 4) using two 1 x 4 1/2 headed pins (12), 1" machine washers and 3/16 x 2 cotter pins.

Bolt the gauge wheel level bar (11) to the turnbuckle assembly (13) through the leveling link (9) as shown. Use the 1 x 6 special thread hex bolt and nylon lock nut. **Do not torque** as before.

Attach the rebound valve mounting bracket (14) and valve mounting bracket plate (15) with four 1/2 x 4 1/2 bolts (16) using lock washers and hex nuts. Insert the 3/4 x 3 transport pin (17) in holder.

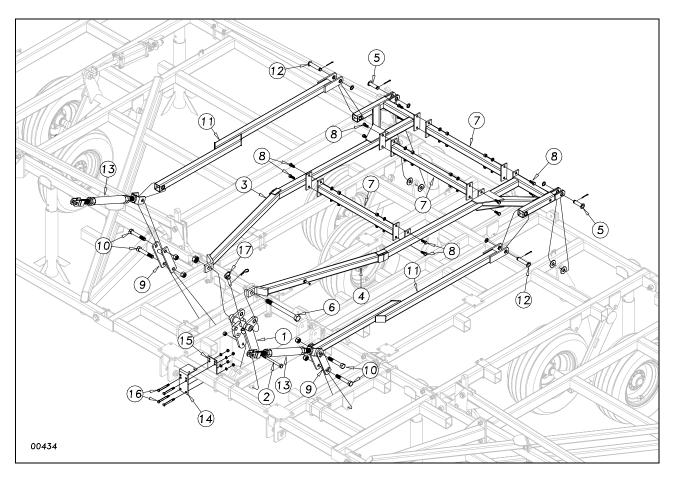


Figure 4

# Center Caster Wheel Linkage & Hitch Pole Assembly

Bolt the center fold bars (1) to the center frame as shown in Figure 5. Use 3/4 x 2 1/2 hex bolts (2) with lock washers & hex nuts. Bolt the center frame truss (3) to the center frame using 5/8 x 1 1/2 hex bolts (4), lock washers and hex nuts, and 3/4 x 2 hex bolts (5) with lock washers and hex nuts.

U-bolt the gauge wheel arm mount (6) to the center brace bar with three 3/4 x 3 x 5 1/2 u-bolts (7). Insert the left & right bottom center gauge wheel arms (8 & 9) and secure with 1 x 5 1/2 special hex bolts (11) and nylon lock nuts,

#### do not torque.

Attach the top gauge wheel arms (10) with the same  $1 \times 5 \frac{1}{2}$  special hex bolt and nylon lock

nut, <u>do not torque</u>. Connect the turnbuckle to the bottom arms with a 1 x 4 clevis pin (12), machine washer and 3/16 x 2 cotter pin. See Caster Wheel Assembly, Section 3 Replacement Parts, for caster wheel exploded diagram.

Bolt the hitch pole (13) to the brace bar with two 1 1/4 x 7 1/2 Gr. 8 hex bolts (14), secure with 1 1/4 lock nuts but *do not torque*. Insert the tongue jack (15) on the hitch pole jack tube. Bolt the hitch clevis (16) to the hitch pole with 1 1/2 x 11 safety chain bolt (17), machine washers, slotted hex nut and 1/4 x 3 cotter pin. Attach hose holder (18) with 1/8 x 1 1/2 cotter pin.

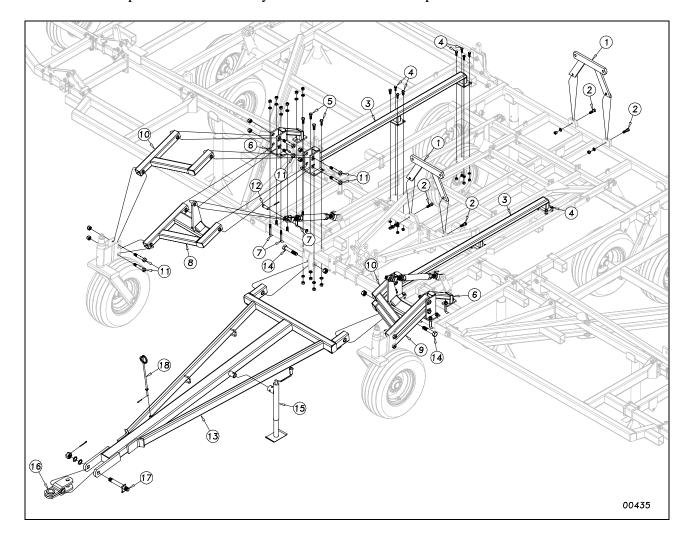


Figure 5

#### **Outside Wing Assembly**

On 5-section models, assemble the outside wing (1) by attaching the outside hinges (2) to the wing with 1 x 6 hex bolt (3) and 5/8 x 3 x 5 1/2 u-bolts (4) as shown in Figure 6. Use a nylon lock nut on the 1 x 6 hex bolt (3) with lock washers and hex nuts on the u-bolt. Attach the 180 degree rocker (5), bulge side out, with the 1 x 3 headed pin (6), 1" machine washer and 3/16 x 2 cotter pin.

Attach the outside wheel bracket (7) just as we did the inside ones, using the  $11/4 \times 6$  pins (8) and  $3/8 \times 2 \cdot 1/4$  Gr.8 hex bolts & top

lock nuts. Slide the walking beam assembly (9) into the wheel bracket sleeve as shown in Figure 6. Again, it is recommended to use some form of anti-seize product on the spindle. Secure with 5/16 x 3 clevis pin (10) and 5/32 x 1 1/2 cotter pin. Note that the longer 14" long spindle assembly goes to the front. Bolt on the 9.5L x 15 tire and wheels (11) with the 1/2 x 1 1/4 lug bolts (12).

Model 6537 & 6539 use one tire and a 14" Hub & Spindle assembly (13) as shown in insert.

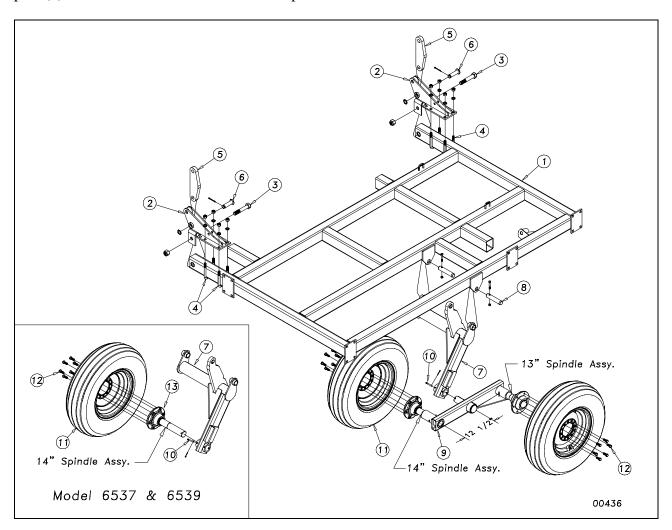


Figure 6

#### **Connecting Outside Wing and Wing Brace Assembly**

On 5-section models, bolt the outside wing assembly (1) to the inside wing frame with Gr.8, 1 x 6 hex bolts, 1 3/4 thread (2) Figure 7, securing with 1" nylon lock nuts.

Bolt the outside wing brace (3) to the plate on the outside wing with  $5/8 \times 1 \cdot 1/2$  bolts (4), with lock washers and hex nuts. Bolt the outside hinge (5) to the wing brace using two  $5/8 \times 3 \times 5 \cdot 1/2$  u-bolts (6), with lock washers and hex nuts, and a  $1 \times 5 \cdot 1/2$  hex bolt (7) with nylon lock nut.

Bolt the 25" offset stub (8) as shown for your model, with 5/8 x 4 x 4 1/4 u-bolts (9) lock washers and hex nuts. Also attach the bolt-on C-frame (10) with 5/8 x 1 1/2 hex bolts (11), lock washers and hex nuts.

Attach the 3 x 8 DR hydraulic cylinder (12) between the lever on the wheel bracket and

the 1 x 7 1/2 eye bolt (13) mounted in the bracket in the back of the wing. Use 1 x 3 1/2 clevis pins (14) with 1" machine washer and 3/16 x 2 cotter pins and 1" jam nuts on the eyebolt.

Attach the 5" bolt on stub (15) to the outside of the wing frame using 5/8 x 1 1/2 hex bolts (16), using lock washers and hex nuts. On 6544 & 6546 models, u-bolt the 11" u-bolt on stub (17) as shown, using 5/8 x 4 x 4 1/4 u-bolts (9). On 6537, 6539, 6541, 6544 models, attach the 4x4 K-Flex stub (18) as shown with 1/2 x 5 1/2 hex bolts (19). On 6541 model, attach the 4 1/2" u-bolt on stub (20) as shown with 5/8 x 4 x 4 1/4 u-bolts (9) using lock washers and hex nuts.

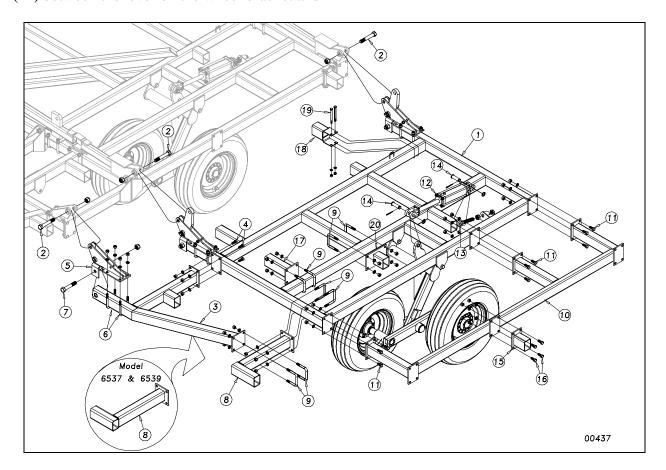


Figure 7

#### **Wing Caster Wheel Linkage Assembly**

Insert the wing level bar (1) through the hole in the rocker fold bracket as shown in Figure 8. Attach the wing level bar (1) to the wheel bracket with a 1 x 3 3/8 usable clevis pin (2), 1" flat washers, 1" machine washer and 3/16 x 2 cotter pin. Slide the leveling link (3) over the leveling link mounting tube and attach with a 1 x 6 special thread GR 8 hex bolt (4) and nylon lock nut, *do not torque*. Bolt the gauge wheel level bar (1) to the turnbuckle assembly (5) through the leveling link (3) as shown. Use a 1 x 6 Gr.8 special thread hex bolt (4) and nylon lock nut. *Do not torque* as before.

U-bolt the gauge wheel arm mounts (6 & 7) to the brace bar with three 3/4 x 3 x 5 1/2 u-bolts (8), lock washers and hex nuts. Insert the bottom gauge wheel arm (10) and secure with 1 x 5 1/2 special hex bolts (9) and nylon lock nuts, *do not torque*. Attach the top gauge wheel arm (11) with the same 1 x 5 1/2 special hex bolt and nylon lock nut, *do not torque*. Connect the turnbuckle to the bottom arm with a 1 x 4 clevis pin (12), machine washer and 3/16 x 2 cotter pin. See Caster Wheel Assembly, Section 3, in parts manual, for caster wheel exploded diagram.

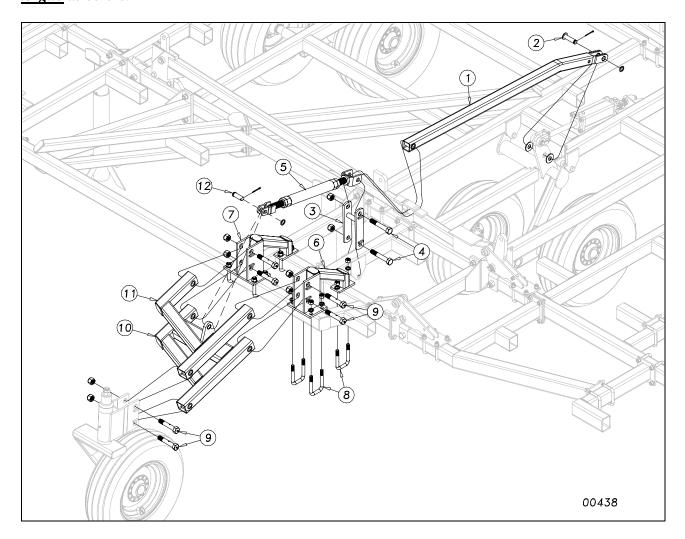


Figure 8

#### Center Lift Cylinder, Rest Pads and Hydraulic Valves Assembly

Connect the two 3 1/2 x 8 main lift cylinders (1) to the center frame as in Figure 9. Connect the rod ends to the lugs on the H-bracket. Place a 1" flat washer on each side of the lug on the H-bracket to keep the hardened bushings from coming out.

Secure the cylinders with 1 x 3 1/2" clevis pins (2), 1" machine washers and 3/16 x 2 cotter pins. Mount the rebound valve (3) as shown with the V1 port to the front and top using two 5/16 x 4 hex bolts (4) with lock washers and hex nuts.

Install the depth stop mounting bracket (5) to the center brace bar using two 5/8 x 3 x 5 1/2 u-bolts (6), lock washers and hex nuts. Bolt the depth stop valve (7) on top of the bracket using the 5/16 x 2 hex bolts (8) with

lock washers. Insert the depth stop tube (9) into the mounting bracket (5) and attach to the level bar with 1/2 flat washer and  $1/8 \times 1$  cotter pin. Bolt the depth stop assembly (10) to the depth stop tube (9) with two  $1/2 \times 2 \times 1/2$  hex bolts (11) using 1/2" lock washers and hex nuts.

U-bolt the 3 1/2" cylinder rest pads (12) on the back bar, if applicable, using a 1/2 x 3 x 5 u-bolt (13) with lock washers and hex nuts. U-bolt the 3" or 4" cylinder rest pads (14) on the center frame as shown, using a 1/2 x 3 x 5 u-bolt (13) with lock washers and hex nuts (see shank layout drawing for exact placement).

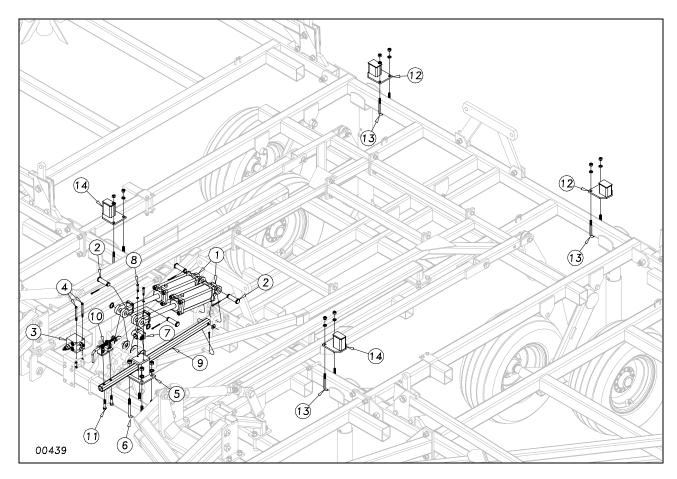


Figure 9

#### Fold Cylinders, Rocker Arm and 3" Rollers Assembly

Connect the center fold 4 x 24 cylinders (1) to the center fold bracket as shown in Figure 10. Use the 1" x 3 1/2 clevis pin (2) with 1" machine washer and 3/16 x 2 cotter pin. Attach the 5¾" (3-section) or 6 1/2" rocker (5-section) (3) to rocker bracket with 1 x 3 Headed Pin (4) using 1" machine washer and 3/16 x 2 cotter. Do Not Connect Rod End Of Cylinders To Rockers Before They Are Charged With Oil.

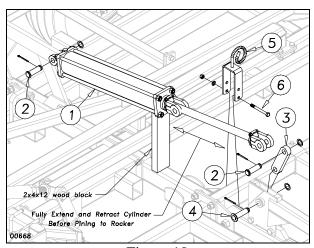


Figure 10

On 5-section models, connect the base of the 4 x 16 fold cylinders (7) to the Rocker/Fold bracket with 1 x 3 1/2 clevis pin (2), 1" machine washer and cotter (see Figure 10). **Do Not Connect Rod End Of Cylinders To Rockers.** Bolt the hose holders (5) to the center frame with a 1/2 x 4 1/2 hex bolt (6), using a lock washer and hex nut.

Place a support block of wood under the cylinders, as shown, so they clear the rockers in the extended position. You are now ready to connect the hydraulic hoses to the cylinders and charge the fold system (see hydraulic layout).

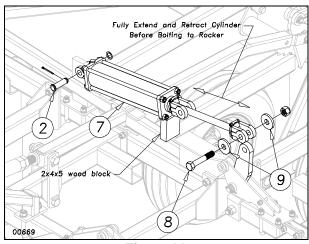


Figure 11

Once the fold cylinders are fully charged and free of air, connect them to the rockers. Use a 1 x 5 1/2 bolt (8) to bolt two 3" rollers (9), one on each side, to the 180 degree rocker as shown in Figure 11. Secure with 1" nylon lock nut. *Rollers must turn freely!* 

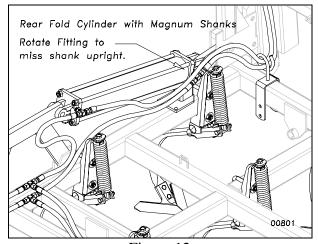


Figure 12

On machines with rear fold cylinders and Magnum Shanks, the hydraulic fittings need to be rotated as shown in Figure 12 to clear the Magnum shank upright when folded.

#### **Center Wing Stop and Outside Wing Stop Assembly**

U-bolt the center wing stop (1) to the second bar from the rear on the center frame as shown in Figure 13. Use  $5/8 \times 4 \times 4 \times 1/4$  u-bolts (2) with lock washers and hex nuts. Center the wing stop from side to side. Insert the  $1/2 \times 4 \times 1/2$  transport lock quick pins (3) in the holders on the wing stop.

On Model 6541-6548, attach the center wheel alignment stub (4) to the center of the wing stop using 5/8 x 2 1/2 x 3 1/2 u-bolts (5), lock washers and hex nuts. U-bolt the wing wheel alignment stub (6) to the inside wing frame using 1/2 x 3 x 5 u-bolts (7), lock washers and hex nuts. See shank layout for proper location for your model.

On Models 6537-6548, u-bolt the wing lock mount (8) on the inside wing with  $1/2 \times 3$ x 5 u-bolts (9). U-bolt the wing lock "T" bracket (13) on the outside wing with the same 1/2 x 3 x 5 u-bolt (9). Refer to the shank layout for your particular model for the exact location of the wing lock mount and lock "T" bracket. Use lock washers and hex nuts on these u-bolts (Note: On models 6537 and 6541 the T-Bracket uses 5/8 x 4 1/32 x 4 1/4 u-bolts). Bolt the wing latch (10) to the wing lock mount (8) with a 3/4 x 4 1/2 bolt (11). Slide a 3/4 flat washer (12) between the latch and the mount on each side to take out the slop. Use a 3/4" lock nut but *do not torque* down. The latch must move freely.

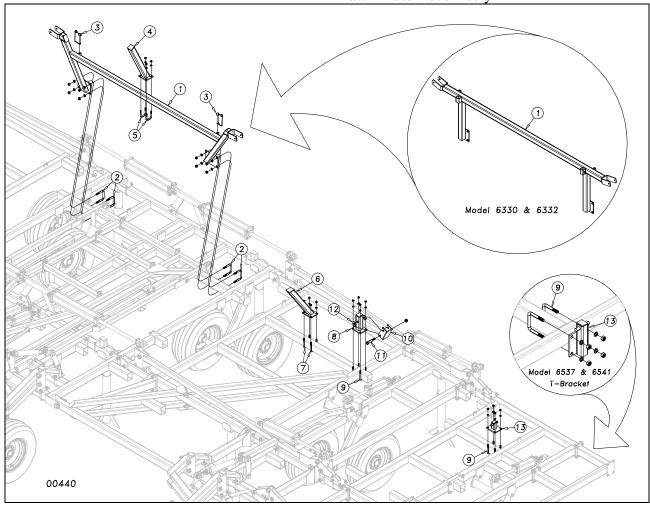


Figure 13

# **Gauge Wheel Assembly**

U-bolt the gauge wheel bracket (1) to the front bar of inside wing brace as shown in Figure 14 using the 5/8 x 4 x 4 1/4 u-bolts (2), lock washers and hex nuts. Slide the gauge wheel arm/hub assembly (3) up into the gauge wheel bracket (1) and pin with the 3/4 x 4 1/2

pin (4). Use four  $1/2 \times 1$  hex bolts (5) to secure the arm and make it rigid. Bolt on the 4-bolt rim and tire (6) with four  $1/2 \times 1$  lug bolts (7). For directions on the proper setting for the gauge wheel during operation, refer to section 4.

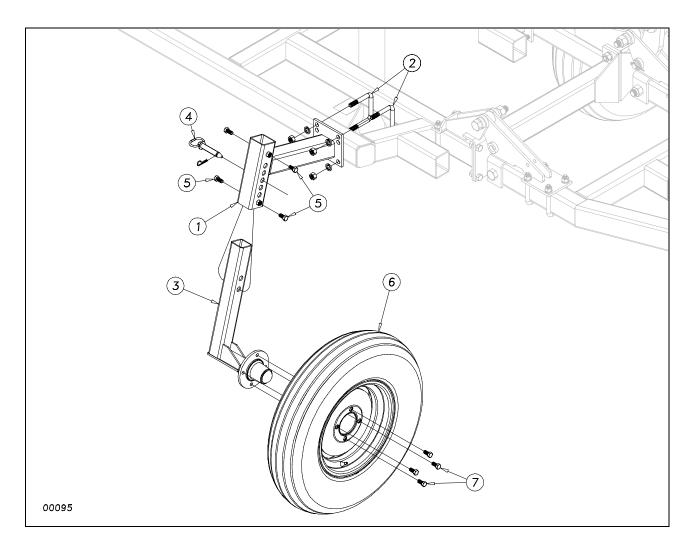


Figure 14

### **Completing Setup**

Install the plastic end caps into all the open ends of all the 4x3 frame tubes.

You should now be ready to add shanks to the machine and then if the machine has a finishing attachment you would install it following the shanks. See the shank layout section 4 for proper shank locations for your unit. Section 3 in this manual shows the individual shank assemblies and parts for both the K-flex and magnum shanks.

Once the shanks are installed and all of the hydraulic procedures have been completed, you may fold the machine to check for clearance and proper shank placement. Slowly fold the machine while watching that hoses do not become pinched or kinked and watch that shanks clear all obstructions.

Once the machine is folded completely, begin to unfold slowly. **Be Sure No One Is** 

<u>Machine</u>. Once the machine is unfolded, add the safety decals and the product decals. Refer

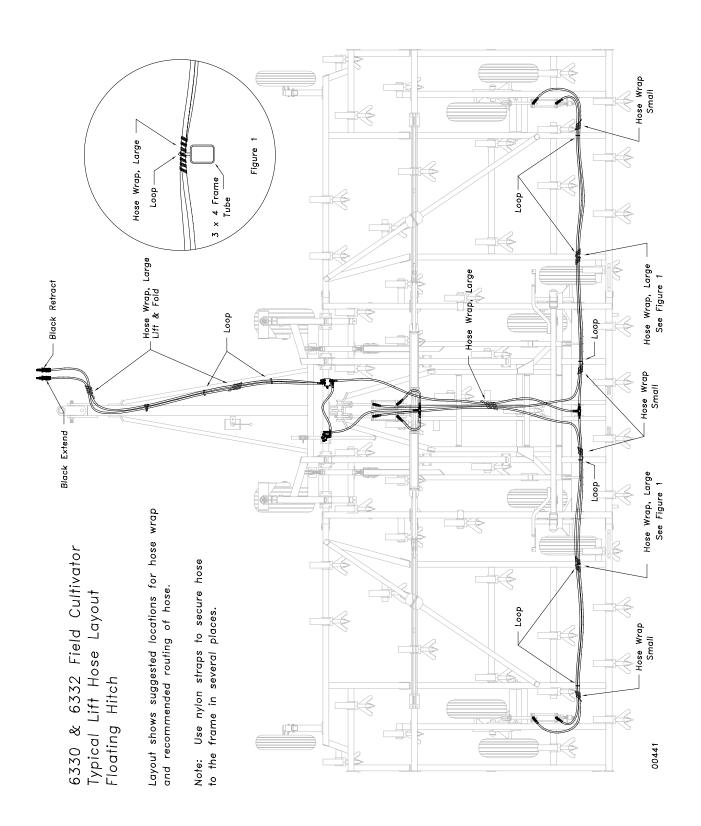
the safety decals and the product decals. Refer to the Important Safety Information section (page 7) for the proper placement of safety decals. Product decal placement is shown in section 4 along with the shank placement.

Install the safety chain, SMV sign & safety lights in accordance with local and state laws. See parts manual (Section 2: Frames) for assembly drawings and parts list.

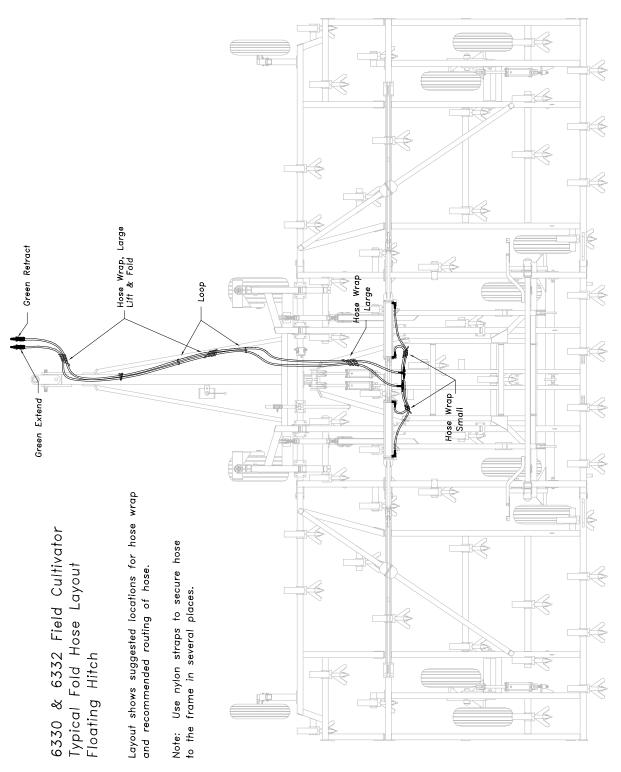
At this point, set up of the machine is complete and you are ready to add any finishing attachment, rear hitches, etc... to the machine. Be sure to consult the operating instructions, section 4, for the first time field adjustments before going to the field for the first time.

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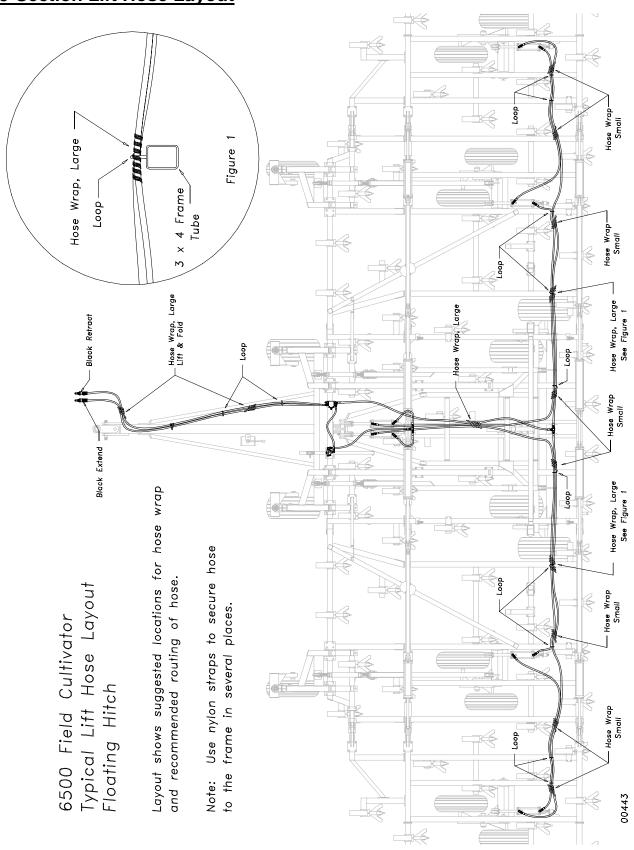
# **3-Section Lift Hose Layout**



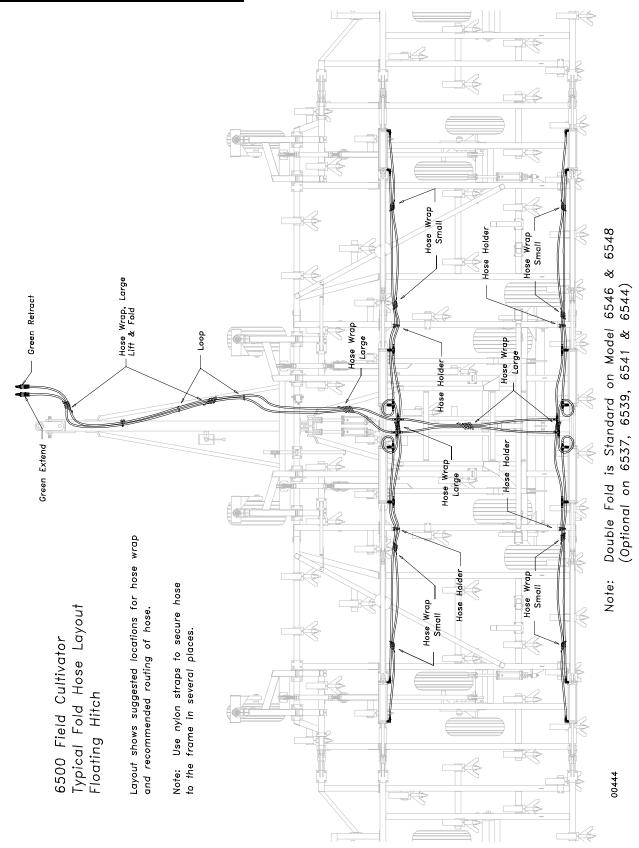
# **3-Section Fold Hose Layout**



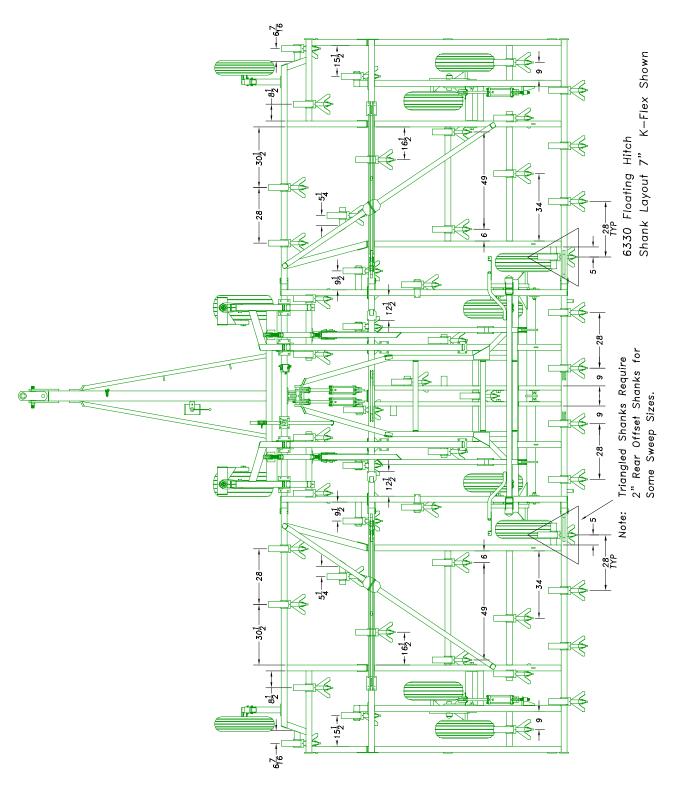
# **5-Section Lift Hose Layout**



# **5-Section Fold Hose Layout**

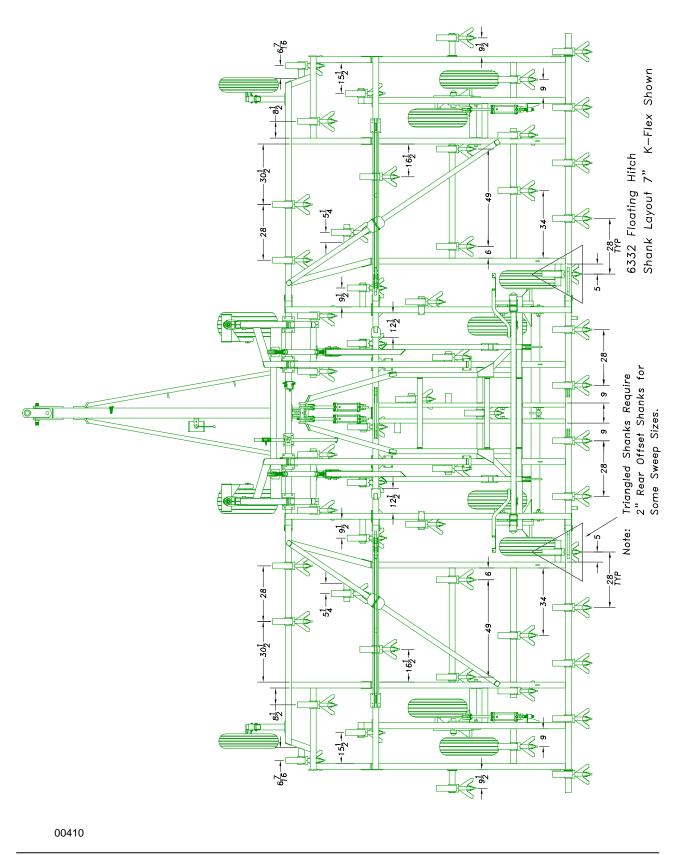


# 6330 Shank Layout

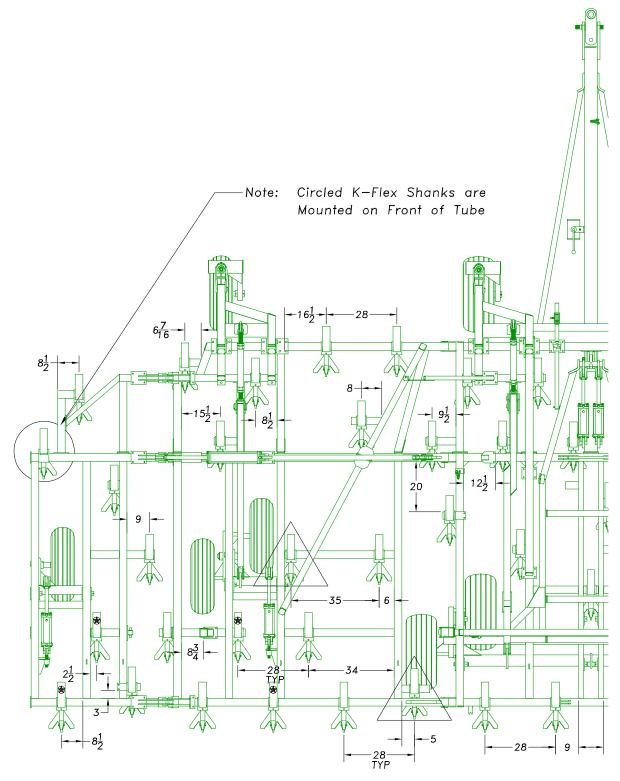


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# 6332 Shank Layout

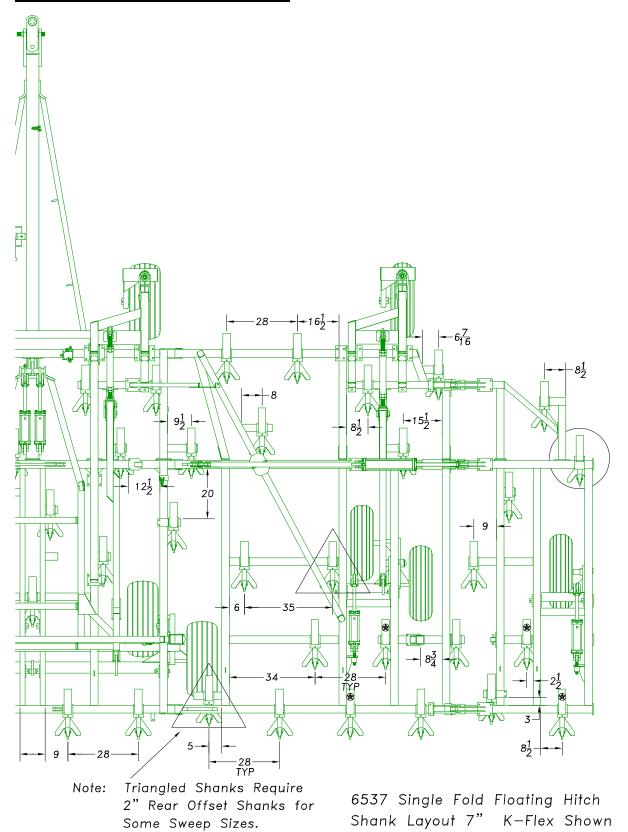


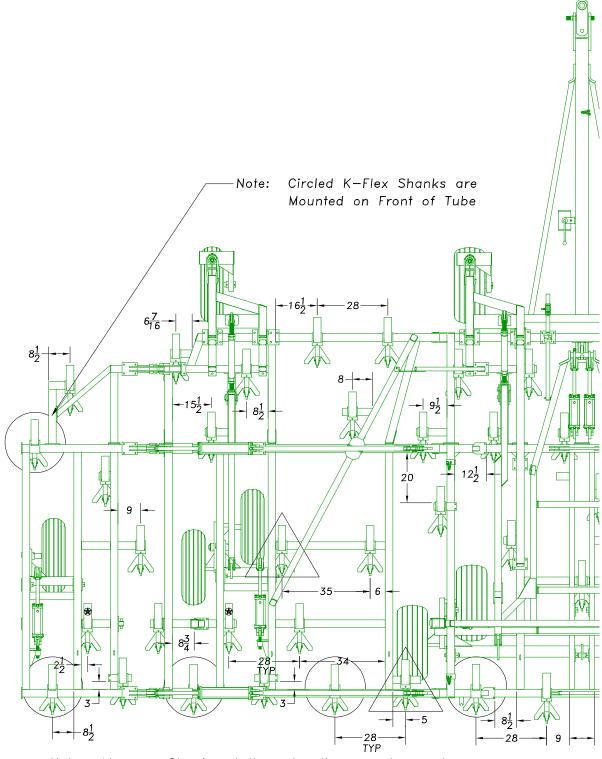
# 6537 Single Fold Shank Layout



Note: Magnum Shanks at these locations need moved outward 1/2" to prevent flat—fold interferance.

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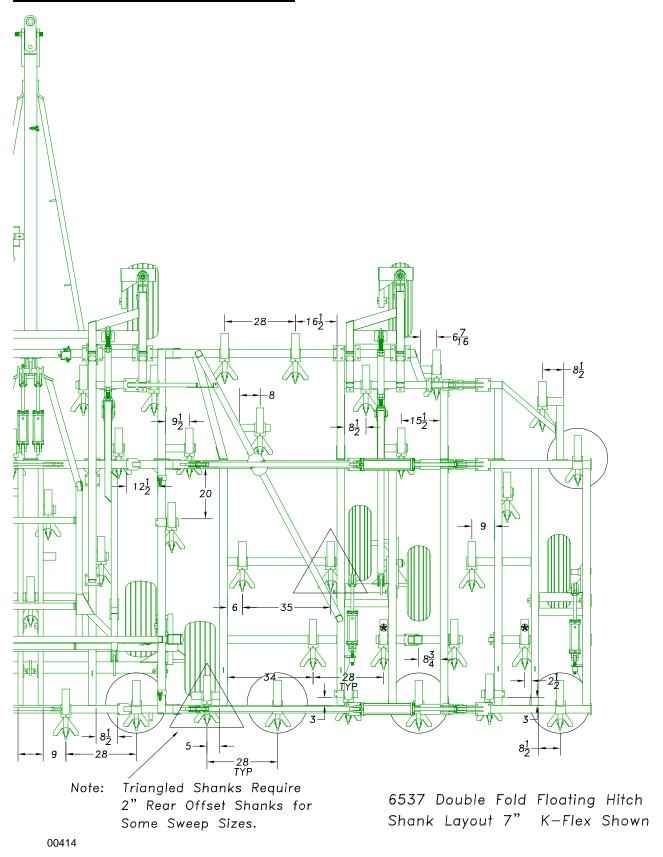


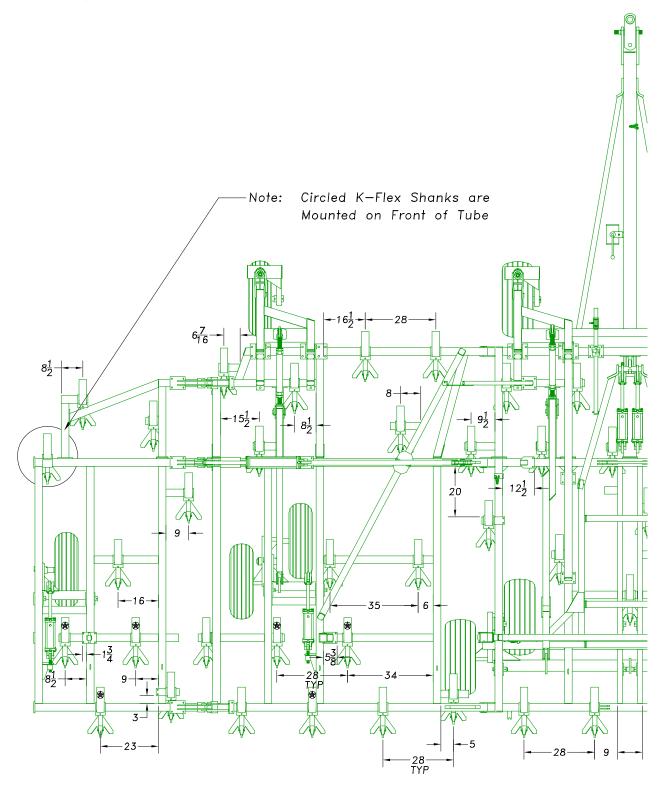
Note: Magnum Shanks at these locations need moved

outward 1/2" to prevent flat-fold interferance.

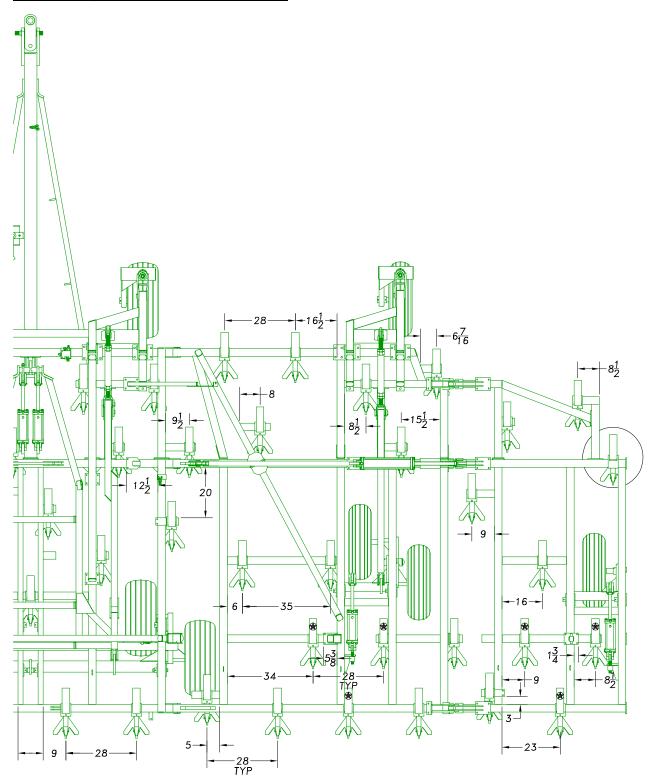
Note: For Magnum Shanks, Turn Inside Rear Fold Cylinder

Fittings before folding as shown in Hydraulic Details pg. 4-13

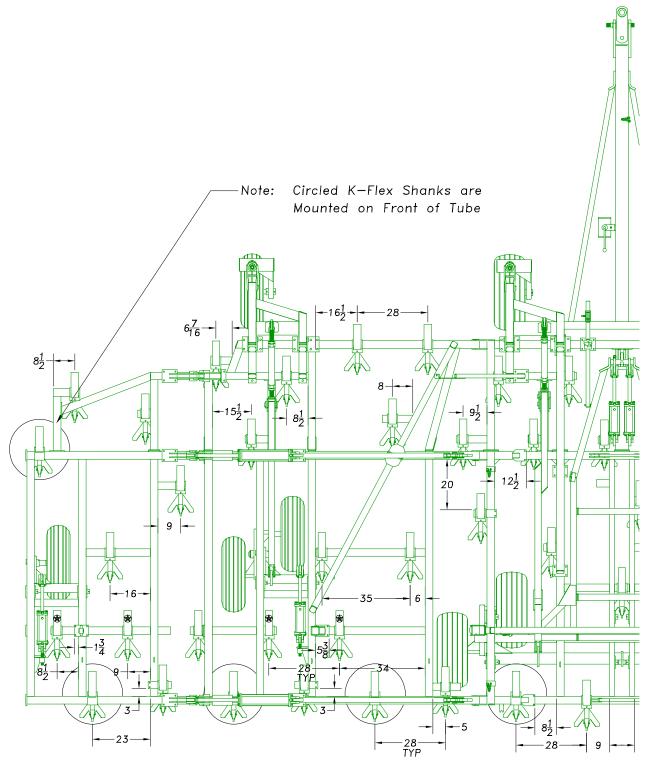




Note: Magnum Shanks at these locations need moved outward 1/2" to prevent flat—fold interferance.



6539 Single Fold Floating Hitch Shank Layout 7" K—Flex Shown

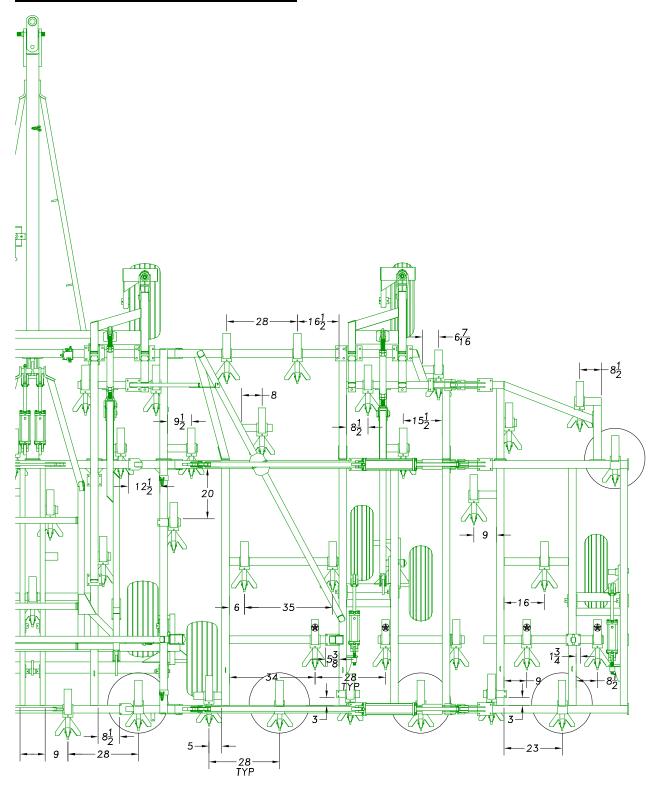


Note: Magnum Shanks at these locations need moved

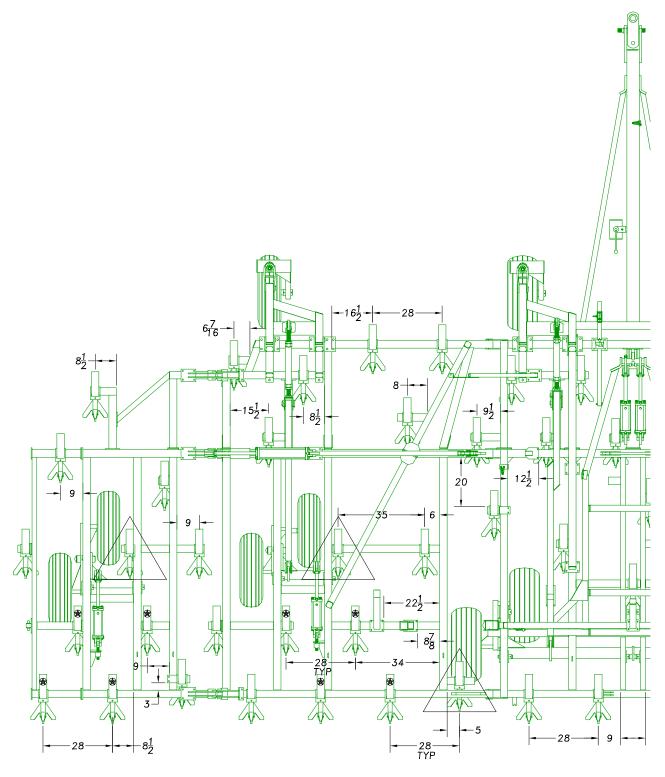
outward 1/2" to prevent flat-fold interferance.

Note: For Magnum Shanks, Turn Inside Rear Fold Cylinder

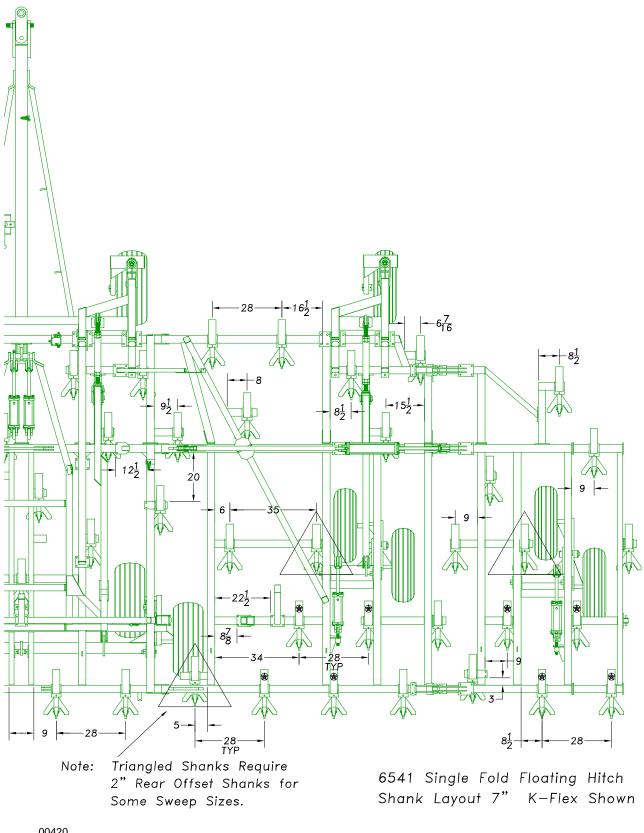
Fittings before folding as shown in Hydraulic Details pg. 4-13

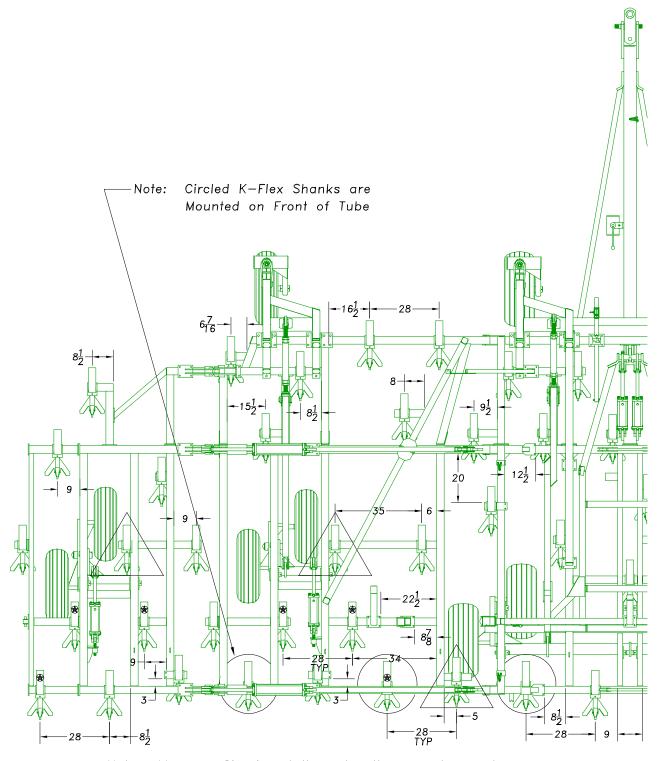


6539 Double Fold Floating Hitch Shank Layout 7" K—Flex Shown



Note: Magnum Shanks at these locations need moved outward 1/2" to prevent flat—fold interferance.



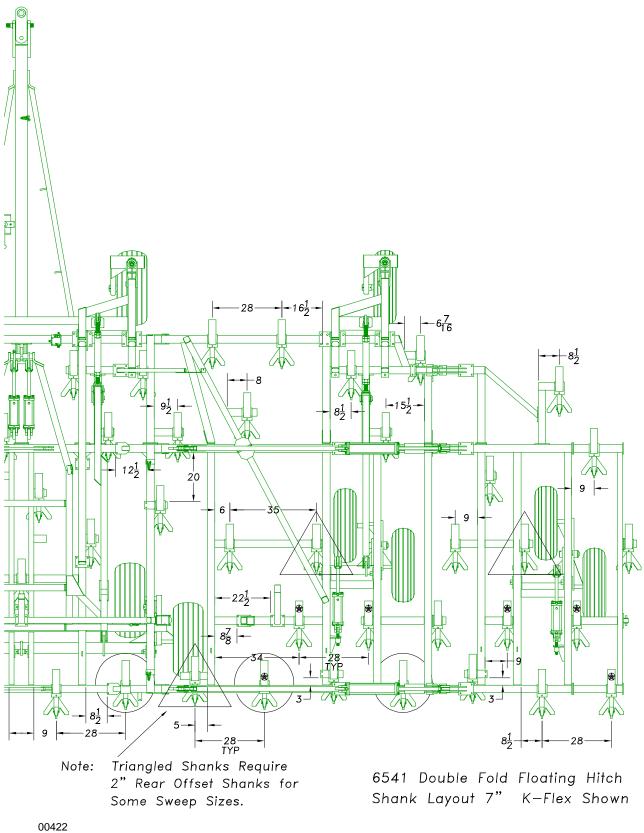


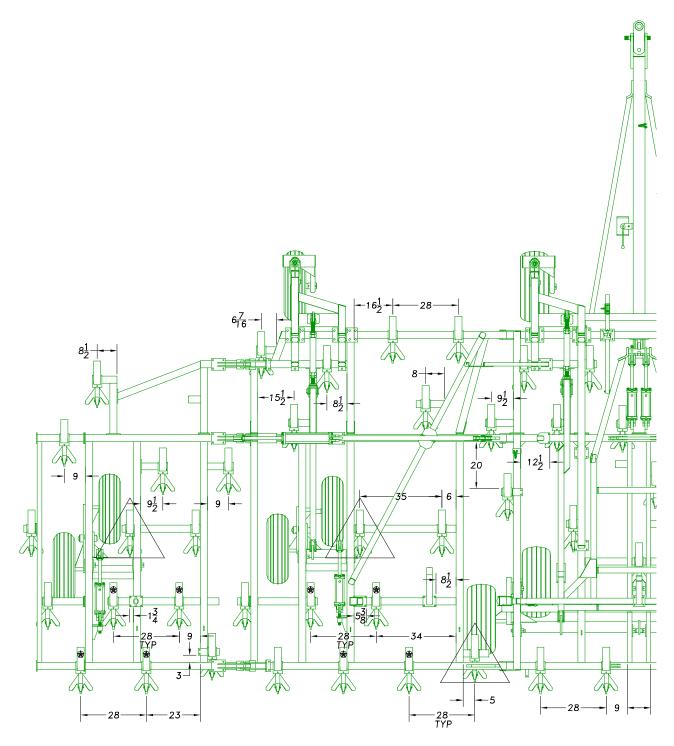
♦ Note: Magnum Shanks at these locations need moved

outward 1/2" to prevent flat-fold interferance.

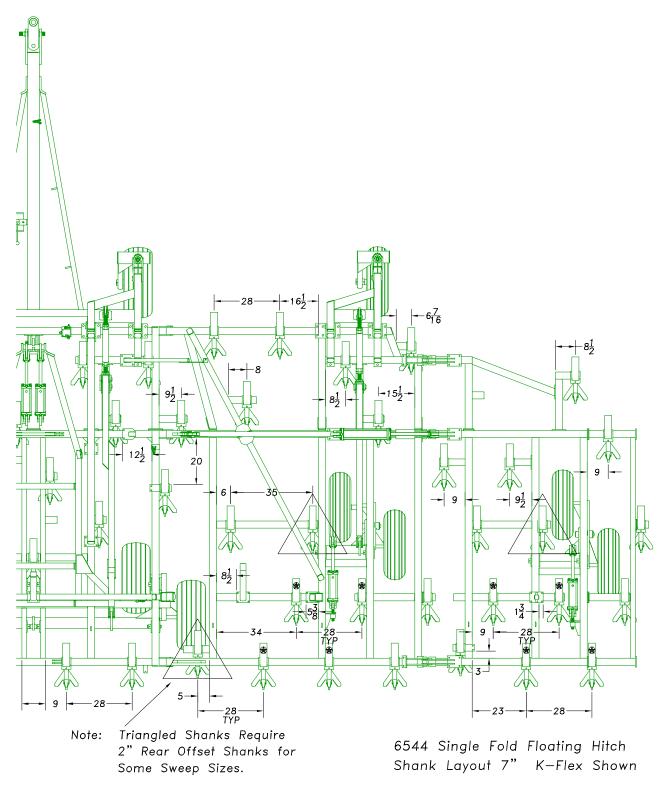
Note: For Magnum Shanks, Turn Inside Rear Fold Cylinder

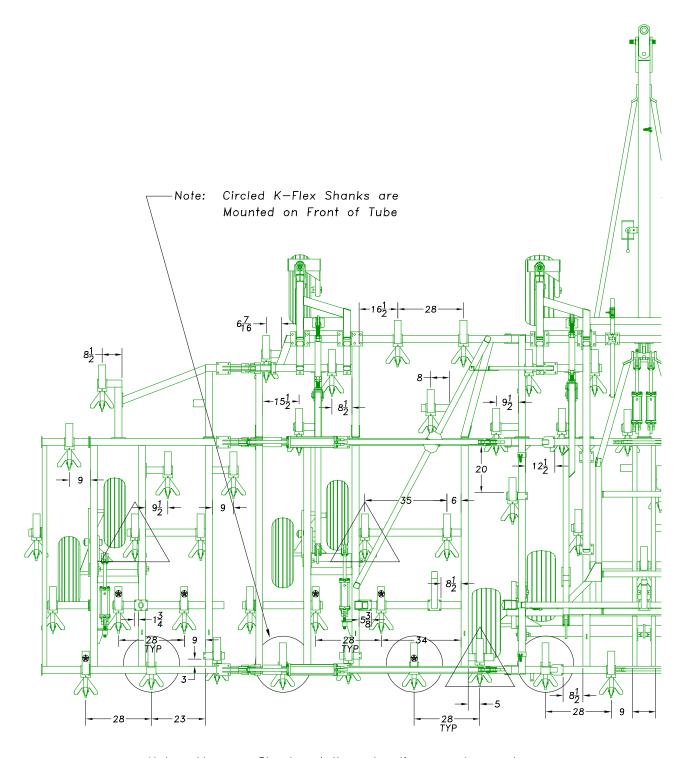
Fittings before folding as shown in Hydraulic Details pg. 4—13





Note: Magnum Shanks at these locations need moved outward 1/2" to prevent flat—fold interferance.



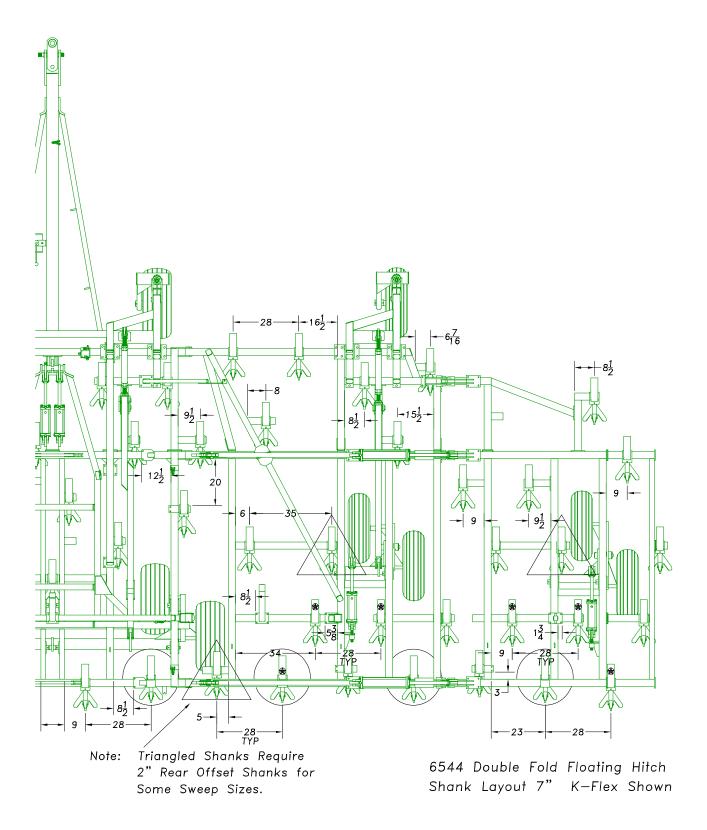


♦ Note: Magnum Shanks at these locations need moved

outward 1/2" to prevent flat-fold interferance.

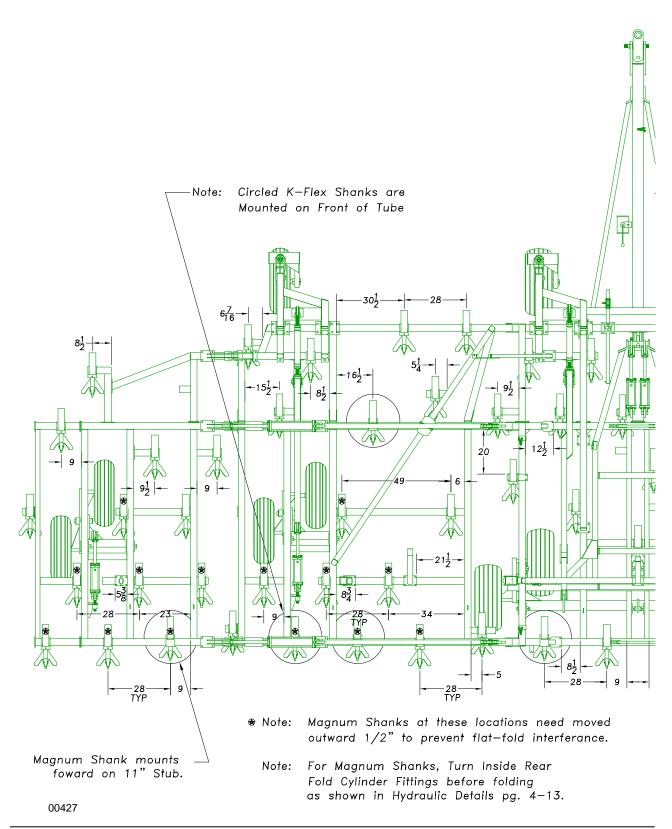
Note: For Magnum Shanks, Turn Inside Rear Fold Cylinder

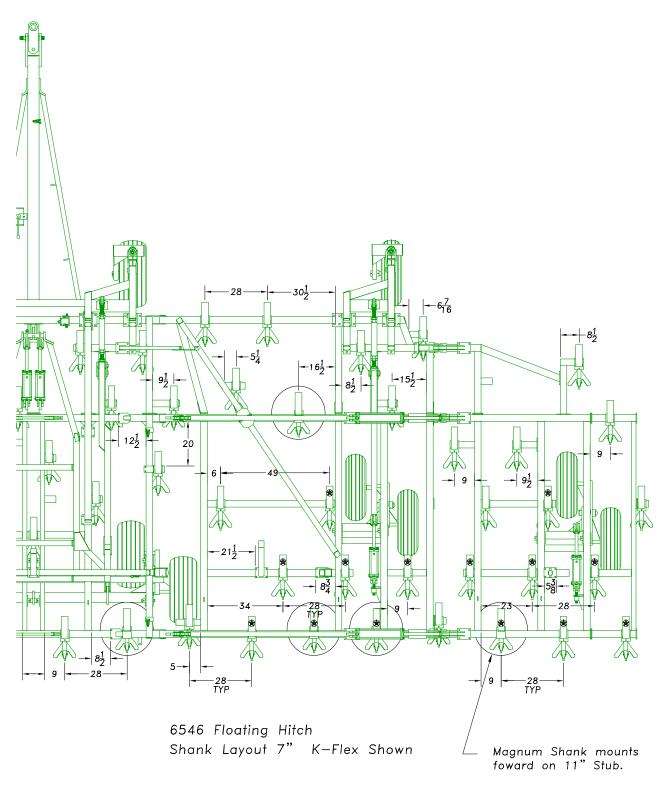
Fittings before folding as shown in Hydraulic Details pg. 4-13

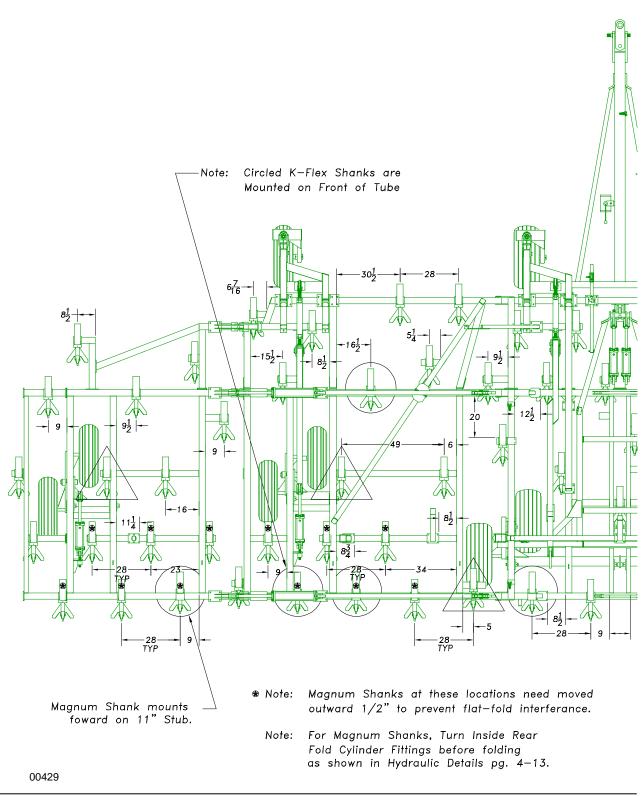


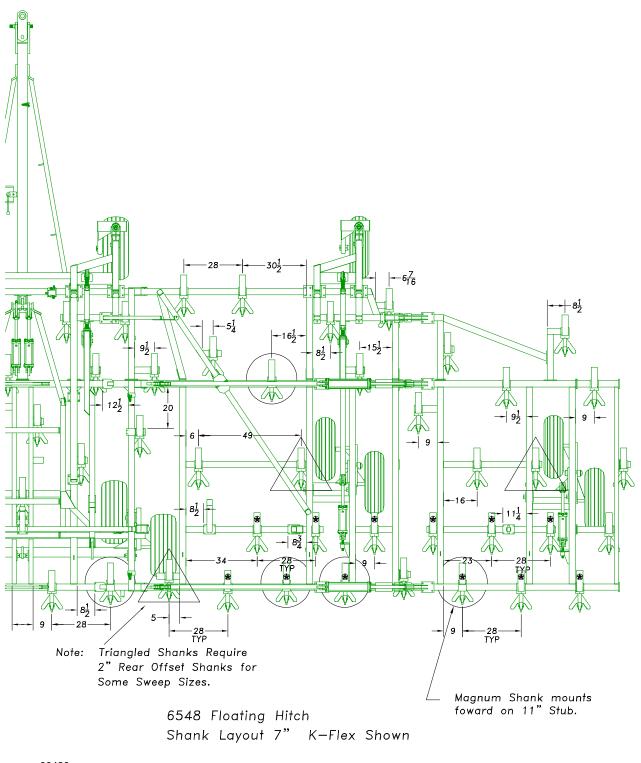
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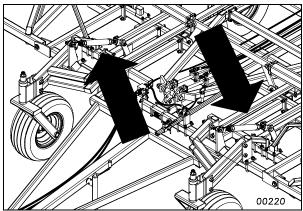


# Operating and Maintenance

#### **Prior to Going to the Field**

- 1. Both dealer and customer read and thoroughly understand all safety recommendations. (These are found in the Safety Section of this operator manual.)
- 2. Make sure your tractor horsepower matches the implement you are pulling. This is important so the implement can do the best possible job.
- 3. Hitch the tractor to the Field Cultivator using the block or yoke clevis determined by the tractor drawbar. Use the correct size pin for clevis or block. Raise any 3-pt arms and/or hitch attachments to its fully raised position to clear implement.
- 4. For TWO-WHEEL DRIVE and MFWD tractors, pin drawbar in fixed center position for field and transport. For FOUR-WHEEL DRIVE and TRAC-DRIVE tractors, leave one hole clearance on each side of drawbar for field position, hitch damage may occur if pinned solid. Pin in center position for transport to maintain maximum steering control.
- 5. Clean all hydraulic couplings and connect to tractor. Each hydraulic coupling has a colored handle on it and is marked with a cylinder, either extending (black) or retracting (red).
- 6. If machine is folded, remove the transport pins from the wing stops. (Do not remove pins if the wing is leaning against the pins or putting pressure on the pins. Use the hydraulics to pull the wings in completely before unpinning them.) Once the pins are removed, slowly unfold the unit. Make sure no one is under the wings during the unfolding process. Check again for hydraulic leaks and watch that hoses do not get pinched in hinges, wings stops, etc.
- 7. After the machine is completely unfolded, raise and lower the Field Cultivator several times to purge air from the hydraulic system. Again check for hydraulic leaks and tighten or replace if necessary.

8. Pre-leveling of machine can be done on a concrete slab or good level surface. Lower machine so sweeps are 1-2" off of ground on the center frame. Adjust the turnbuckle (Figure 1) at the front of machine to level it from front to back. (Shorten to bring front down, extend to bring front up.) Level machine with the front row shanks just slightly deeper or lower than the back.



9. Set the wings to match the depth of the center. This is done by adjusting the lift cylinder eyebolt on each wing (see Figure 2). Lengthen the bolt to run shallower, shorten the bolt to run deeper.

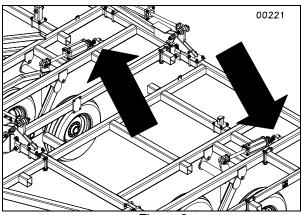


Figure 2

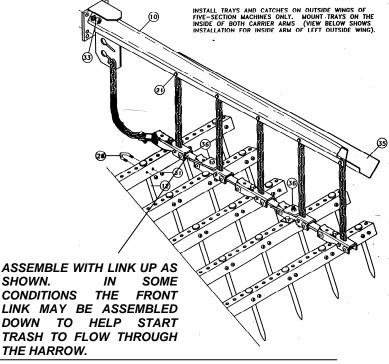
In some conditions the wings will need to be set slightly lower than the center as the center may tend to run deeper behind the tractor tires.

- Check safety chain hookup. Make sure all warning lights are hooked up and functioning correctly.
- 11. Check the tire pressure for proper inflation and check the tightness of the lug bolts. Tire pressure amounts are located on the sidewall of each tire.
- 12. Check for any bolts that may need tightened or retightened. Grease all the hinge points. The hubs come pre greased and will not need more grease at this time.
- 13. Put transport lock in place and refold the machine slowly. Put wing stop pins in place. Always use the transport pins when moving from field to field. You are now ready to go to the field.

#### **General Operation Instructions and In-Field Adjustments**

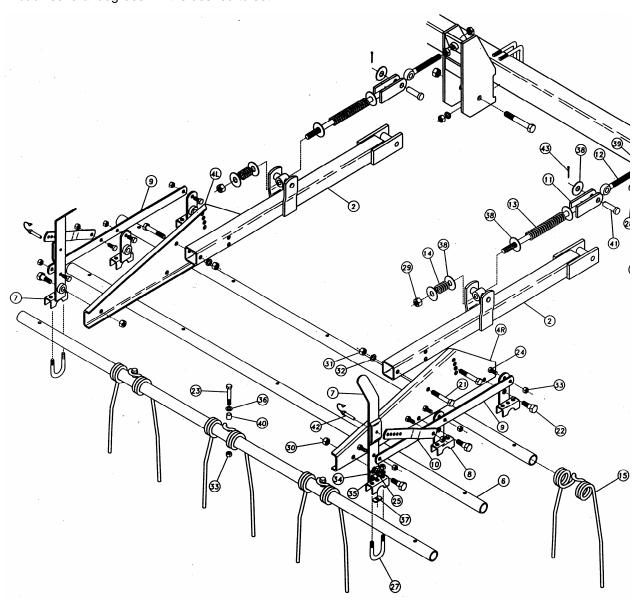
- Remove the transport pins and unfold the machine. Make sure the fold cylinders are fully extended to allow the wings to fully flex in the field
- 2. If possible have someone observe the machine during first time operation for levelness—front to rear and wings to center frame. Adjust each as needed. For front to rear, either extend or shorten the length of the turnbuckle on the self-leveling. Never run the machine with the back lower (deeper) than the front. To adjust the machine from side to side, use the eyebolt on each wing. Adjust the inside wings first and then the outside wings. The gauge wheels should be set in field position to be ½" to 1 ½" off the ground.
- The ideal working speed is 6 to 7 mph.
   Working too slow may cause plugging, poor
   incorporation or mixing of crop residue and
   reduced weed kill. Running too fast may
   cause streaks in chemical incorporation and
   ridging.
- 4. The field cultivator is designed as a <u>secondary</u> tillage tool and is designed to leave a finished seedbed following some form of fall or spring tillage. For best results, if at all possible, run the machine at a slight angle to the rows. This will improve trash flow and help spread the residue more evenly throughout the field.
- 5. When you have the machine set to the desired working depth, set the depth stop slide on the depth control bar. This is located at the front of the machine on the brace bar. This will maintain a constant depth each time after raising and lowering the machine.
- 6. If after setting the depth stop, the detent on the LINK MAY BE ASSEMBLED tractor kicks out before the stop contacts the button on the depth stop, slow the hydraulic TRASH TO FLOW THROUGH

- flow speed down. If this problem still persists, contact the factory service representative for other possible adjustments. Do not try to adjust the rebound valve without first contacting the factory service rep.
- Adjust the drag to leave the desired results while maintaining the trash flow through the drag.
  - a.) On the spike drag, start with 5 links
    hanging from the chain in drag arm bottom
    slot. (This is the starting point for worst
    conditions.) The cleaner the ground, the
    shorter the pull chain may be pulled up.
    On the spike drag, one of the links in the
    first row of angles is turned over. This
    allows the trash to start flowing through the
    drag easier by changing the angle of the



first row of teeth. Always make sure that the drag is never pulling off the hang chains. If so, shorten pull chains.

- b.) On coil tine drags, start with the top eyebolt (12) centered. Then level drag mainframe (4R and 4L) by changing position of leveling bolt (21). There are two holes in the arm and four in the mainframe. One of these will get you where you need to be to level. To lay the teeth back, remove the clip pin (42) on each end and move strap adjustment by pushing the handle (7) forward. This strap has 5 holes and will let you lay the teeth back several degrees. If it is desired to set
- one row, usually the first, different than the rest as far as the angle is concerned, it can be adjusted individually by loosening the U-bolt and set- screw on each end of the drag bar. Down pressure on the drag is achieved by lengthening the eyebolt (12) on the top bracket. Depending on the amount of down pressure, you may need to relevel the mainframe.
- c.) If a basket is added, adjust the amount of down pressure by either shortening the eyebolt for less pressure or lengthening the eyebolt for more pressure.



#### **Maintenance and Lubrication**

- Always use the transport lock when working or doing maintenance on the Field Cultivator. If folded, be sure your wing stop pins are in place. Read and understand all safety decals on your equipment.
- During the first season of operation, and periodically after that, check your bolts for tightness. Check shank pivot bolts on the spring-loaded shank; these must remain tight to prevent excessive wear on the shank assembly.
- Replace or rotate worn parts as needed hinge bolts, clevis pins, bearings, sweeps, shanks, etc...
- 4. Check and tighten or replace any hydraulic leaks. Check hoses for any leaks. It is important that there are no leaks on the equipment.
- Grease wheel bearings and walking beams sparingly. Over greasing may cause damage to seals and reduce the life of the bearing. Grease hinge points periodically.

#### Wheel Bearings

Grease every 50 hours (sparingly) and check for endplay.

#### **All Hinge Points**

Grease every 10 hours.

#### Walking Beam Pivot Bearings

Grease every 100 hours (sparingly) and check for endplay.

- Check drag bolts and parts for looseness or excessive wear. Replace broken or bent teeth. Your drag is an important part of the tillage operation.
- 7. If machine is stored outdoors over the winter months it is a good idea to fold the machine then set it down on the ground so all of the cylinders are retracted to protect the cylinder rods. This will extend the life of the cylinder seals and reduce internal and external leaks.

By following and maintaining a routine service and lubrication program, your tillage equipment will give you many years of service.

For more information on operating, adjusting or maintaining your Great Plains Field Cultivator contact your local Great Plains dealer or call

Great Plains Mfg. at (800) 255-9215







Lubrication Legend











# Specifications and Capacities

## **3-Section Field Cultivator Specifications**

Model	Tilliage	Transport		Center	1st	Ext.	No. of	Approx.	Aprox.	
No.	Width	Height	Width	Size	Wing	Size	Shanks	Weight	Horsepower	
6113	13' 7"		13' 8"	10'	2'		23	4,010	70-90	
6116	15' 11"		16'	10'	2'	28"	27	4,204	85-105	
6318	18' 3"	7' 10"	13' 9"	10'	4'		31	5,543	100-120	
6320	20' 7"	9'	13' 9"	10'	4'	28"	35	5,678	115-135	
6323	22' 11"	10' 2"	13' 9"	10'	6 1/2'		39	6,616	130-150	
6325	25' 3"	11' 4"	13' 9"	10'	6 1/2'	28"	43	6,809	140-160	
6328	27' 9"	12' 6"	13' 9"	10'	9		47	7,241	150-170	
6330	29' 11"	13' 8"	13' 9"	10'	10'		51	8,400	160-180	
6332	32' 3"	14' 10"	13' 9"	10'	10'	28"	55	8,630	170-190	
7332	32' 3"	13' 8"	16' 1"	12'	10'		55	8,630	170-190	
7334	34' 7"	14' 10"	16' 1"	12'	11'		59	9,320	180-200	
7337	36' 11"	16'	16' 1"	12'	12 1/2'		63	10,096	190-210	
7341	41' 7"	14' 10"	16' 1"	12'	11'	84"	71	10,741	200-220	
7344	43' 11"	16'	16' 1"	12'	12 1/2'	84"	75	10,979	220-240	

Walking Tandems on wings of Model 6323 and larger.

Models 7341 and 7344 have flipover wing extensions.

# **5-Section Field Cultivator Specifications**

Model No.	Tilliage Width	Transport Height Width		Center 1st Size Wing		2nd No. of Wing Shanks		Approx. Weight	Aprox. Horsepower	
	·			T		· •	ı	· · · · ·		
6537	36' 11"	12' 6"	13' 9"	10'	9'	4 1/2'	63	10,096	190-210	
6539	39' 3"	12' 6"	13' 9"	10'	9'	5 1/2'	67	10,215	195-215	
6541	41' 7"	12' 6"	13' 9"	10'	9'	6'	71	10,741	200-220	
6544	43' 11"	12' 6"	13' 9"	10'	9'	7'	75	10,979	220-240	
6546	46' 3"	13' 8"	13' 9"	10'	10'	7'	79	11,178	240-290	
6548	48' 7"	13' 8"	13' 9"	10'	10'	8 1/2'	83	12,956	260-300	
7551	50' 11"	13' 8"	16' 1"	12'	10'	8 1/2'	87	13,155	210-360	
7553	53' 3"	14' 10"	16' 1"	12'	11'	8 1/2'	91	13,861	320-370	
7556	55' 7"	14' 10"	16' 1"	12'	11'	10'	95	14,060	330-380	
7558	57' 11"	16'	16' 1"	12'	12 1/2'	10'	99	14,298	340-390	
7560	60' 3"	16'	16' 1"	12'	12 1/2'	11'	103	14,690	350-400	

Walking tandems on all inside wing frames.

Walking tandems on outside wings of model 6541 and larger.

Double fold standard on models 6546 and larger, optional on 6537, 6539, 6541 and 6544.

With a continued commitment to constantly improving our products, these specifications are subject to change without notice.



### **Torque Values Chart for Common Bolt Sizes**

•		Bolt H	ead Ide	entifica	ation		Bolt Head Identification						
Bolt Size (inches)		$\bigcup$					Bolt Size (metric)	5.	8	8.	8	10.	9
	Grad		Grad	de 5	Gra	de 8		Class 5.8		Class 8.8		Class 10.9	
in-tpi <sup>1</sup>	N·m²	ft-lb <sup>3</sup>	N · m	ft-lb	N · m	ft-lb	mm x pitch <sup>4</sup>	N·m	ft-lb	$\textbf{N} \cdot \textbf{m}$	ft-lb	N·m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 1/4" - 7	680	500	1520	1120		1820	M36 X 2	1880	1380	2960	2190	4100	3220
1 1/4" - 12		555	1680	1240		2010							
1 3/8" - 6	890	655	1990	1470		2380	<sup>1</sup> in-tpi = nominal thread diameter in inches-threads per inch						nch
1 3/8" - 12	1010	745	2270	1670	3680	2710	<del>-</del>						
1 1/2" - 6	1180	870	2640	1950		3160	<sup>3</sup> ft-lb= foot pounds						
1 1/2" - 12	1330	980	2970	2190	4820	3560	4 mm x pitch = nominal thread diameter in millimeters x thread pitch						

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

### **Tire Inflation Chart**

Tire Size	Inflation PSI	Tire Size	Inflation PSI
6.70 x 15" 4-Ply	32	11L x 15" 8-Ply Rib Implement	36
9.5L x 15" 8-Ply Rib Implement	44	11L x 15" 12-Ply Rib Implement	52
9.5L x 15" 12-Ply Rib Implement	64	11L x 15" F-Ply Rib Implement	90

# Warranty

Great Plains Manufacturing, Incorporated warrants to the original purchaser that this tillage equipment will be free from defects in material and workmanship for a period of one year from the date of original purchase when used as intended under normal service conditions for personal use; 90 days for commercial or rental purposes. This Warranty is limited to the replacement of any defective part by Great Plains Manufacturing, Incorporated and the installation by the dealer of any such replacement part. Great Plains reserves the right to inspect any equipment or part which are claimed to have been defective in material or workmanship. This Warranty does not apply to any part or product which in Great Plains' judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. This Warranty shall not apply if the product is towed at a speed in excess of 20 miles per hour.

Claims under this Warranty must be made to the dealer which originally sold the product and all warranty adjustments must by made through such dealer. Great Plains reserves the right to make changes in materials or design of the product at any time without notice. This Warranty shall not be interpreted to render Great Plains liable for damages of any kind, direct, consequential, or contingent, to property. Furthermore, Great Plains shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, losses caused by harvest delays or any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Great Plains Manufacturing, Incorporated within 10 days from the date of original purchase.